FALL
25¢

ANC

A THRILLING PUBLICATION

FANTASTIC STORY

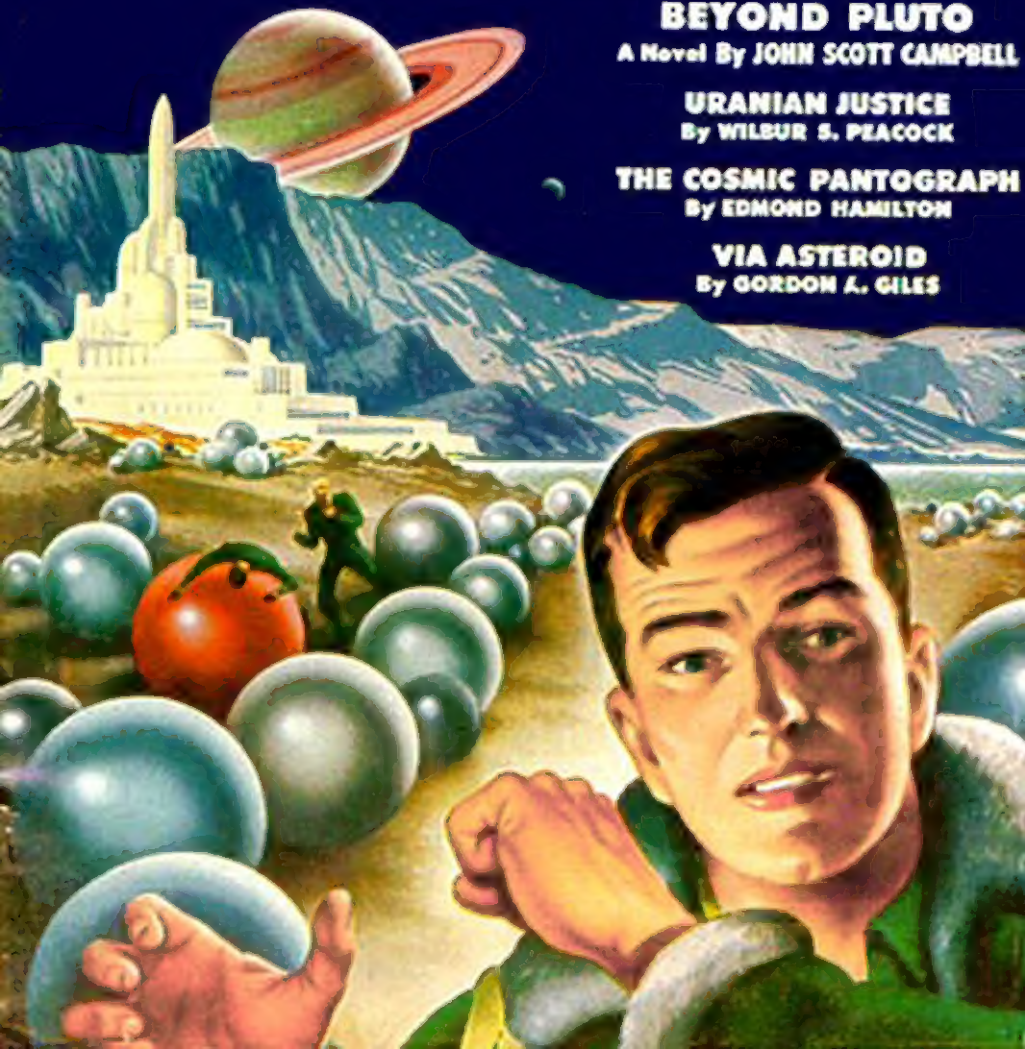
MAGAZINE

BEYOND PLUTO
A Novel By JOHN SCOTT CAMPBELL

URANIAN JUSTICE
By WILBUR S. PEACOCK

THE COSMIC PANTOGRAPH
By EDMOND HAMILTON

VIA ASTEROID
By GORDON A. GILES



RO-BERT FASHIONS

Style No. 1105

Enhance your chance with *him* in this "can't do without" front panelled gem of a topper — Two generous slit pockets curve into front panel — Large gold tone button closes just below a jaunty collar. Turn around and show a full flared swing back. In finest quality rayon gabardine.

COLORS:
- NAVY
- RED
- AQUA
- WHITE
- PINK
- KELLY GREEN
- MAIZE

Style No. 1104

A morning — noon and night topper you'll take with you everywhere. The sweep of the front yoke is topped with three large gold-tone buttons and a jaunty collar. Graceful flares fall from the matching back yoke. Large patch pockets. In finest quality rayon gabardine.

Just Imagine!

ONLY 3.99 EACH

SIZES:
9, 11, 13, 15, 17
12, 14, 16, 18, 20
38, 40, 42, 44, 46

COLORS:
- NAVY
- RED
- AQUA
- WHITE
- PINK
- KELLY GREEN
- MAIZE

IN ALL SIZES:
9, 11, 13, 15, 17
10, 12, 14,
16, 18, 20
5.99

38, 40, 42,
44, 46
6.94

Style No. 1505

"DRAMATIC GLORY"

Exciting as a candlelight kiss, romantic as a moonlight stroll! The rich smooth rayon drapes softly over your shoulders . . . the alluring neckline plunges recklessly to reveal your warmly enticing loveliness. Lavish accordion pleats completely encircle the whirling ballerina skirt . . . Luxurious wide self belt with six gold-tone eyelets. Zipper placket.

COLORS: • BLACK • AQUA • PINK • POWDER BLUE

RO-BERT FASHIONS, Dept. TF9
6 West 20th Street, New York 10, N. Y.

Please rush the following items as illustrated. If not delighted, I may return purchases within 10 days for full refund.

Style No.	Size	1st Color Choice	2nd Color Choice	Price
1104				3.99
1105				3.99
1505				

☐ I enclose full amount plus 21¢, saving C.O.D. charges.
☐ Send C.O.D. I'll pay full amount plus postage and shipping.

Name .....

Address .....

City ..... Zone ..... State .....

SEND NO MONEY-10 DAY FREE TRIAL

NOW!

Industry needs *trained* men—needs them NOW!

Can you qualify for the premium jobs that are open to trained draftsmen, machinists, technicians?

You can, if you start preparing yourself immediately. And the International Correspondence Schools can help you.

Just mark and mail the coupon below. We'll rush you full information about practical, easy-to-understand I. C. S. Courses—courses being used by many defense industries to train their own workers.

The time for action is NOW!

INTERNATIONAL CORRESPONDENCE SCHOOLS

ICS

BOX 3968-V, SCRANTON 9, PENNA.

Without cost or obligation, please send me full particulars about the course BEFORE which I have marked X:

- ☐ Accounting and Management
- ☐ Architecture
- ☐ Automobiles
- ☐ Chemistry
- ☐ Commercial Art
- ☐ Drafting
- ☐ Electrical Engr.
- ☐ High School
- ☐ Mechanical and Steam Engineering
- ☐ Plumbing
- ☐ Radio & Television
- ☐ Salesmanship
- ☐ Shop Practice
- ☐ Surveying and Mapping
- ☐ Textiles

Air Conditioning and Plumbing Courses
- ☐ Air Conditioning
- ☐ Heating
- ☐ Refrigeration ☐ Steam Fitting

Chemical Courses
- ☐ Chemical Engineering
- ☐ Petroleum Refining ☐ Plastics
- ☐ Pulp and Paper Making

Civil Engineering, Architectural and Mining Courses
- ☐ Architectural Drafting
- ☐ Building Estimating
- ☐ Civil Engineering ☐ Coal Mining
- ☐ Contracting and Building
- ☐ Highway Engineering
- ☐ Lumber Dealer
- ☐ Sanitary Engineering
- ☐ Structural Drafting
- ☐ Structural Engineering

Communications Courses
- ☐ Electronics
- ☐ Practical Telephony
- ☐ Radio, General ☐ Radio Operating
- ☐ Radio Servicing ☐ Television
- ☐ Telegraph Engineering

Electrical Courses
- ☐ Electrical Drafting
- ☐ Electric Light and Power
- ☐ Lighting Technician
- ☐ Practical Electrician

Internal Combustion Engines Courses
- ☐ Aviation ☐ Diesel-Electric
- ☐ Diesel Engines ☐ Gas Engines

Mechanical Courses
- ☐ Aeronautical Engineer's, Jr.
- ☐ Aircraft Drafting ☐ Flight Engr.
- ☐ Forging ☐ Foundry Work
- ☐ Heat Treatment of Metals
- ☐ Industrial Engineering
- ☐ Industrial Instrumentation
- ☐ Industrial Metallurgy
- ☐ Mold-Loft Work
- ☐ Pattermmaking—Wood, Metal
- ☐ Railroad
- ☐ Reading Shop Blueprints
- ☐ Sheet Metal Worker
- ☐ Ship Drafting ☐ Ship Fitting
- ☐ Tool Designing ☐ Toolmaking
- ☐ Welding Engineering
- ☐ Welding—Gas and Electric

Textile Courses
- ☐ Cotton Manufacturing
- ☐ Loom Fixing ☐ Rayon Weaving
- ☐ Textile Designing
- ☐ Woolen Manufacturing

Stationary Eng'r'g Courses
- ☐ Boilermaking ☐ Combustion Engr.
- ☐ Engine Running ☐ Marine Engr.
- ☐ Power Plant Engineering

Business and Academic Courses
- ☐ Advertising ☐ Bookkeeping
- ☐ Business Administration
- ☐ Bus. Correspondence ☐ Bus. Law
- ☐ Certified Public Accounting
- ☐ Commercial ☐ Federal Tax
- ☐ First Year College ☐ Foremanship
- ☐ French ☐ Good English
- ☐ Higher Mathematics ☐ Illustration
- ☐ Industrial Supervision
- ☐ Motor Traffic ☐ Postal Civil Service
- ☐ Retailing ☐ Retail Bus. Management
- ☐ Secretarial ☐ Sign Lettering
- ☐ Spanish ☐ Stenography
- ☐ Traffic Management
- ☐ Typewriting

Name _____ Age _____ Home Address _____

City _____ State _____ Working Hours _____ A.M. to _____ P.M.

Present Position _____ Employed by _____

Special tuition rates to members of the Armed Forces. Canadian residents send coupon to International Correspondence Schools Canadian, Ltd., Montreal, Canada.

FANTASTIC STORY MAGAZINE

Vol. 8, No. 1 A THRILLING PUBLICATION FALL, 1951

A Full-Length Novel

BEYOND PLUTO **JOHN SCOTT CAMPBELL 9**
Rare platinum coins from an ancient Egyptian tomb lead a group of scientists to a hidden land which holds the key to the stars

Four New Short Stories

TRAIL BLAZER . . . . . **RAYMOND Z. GALLUN 88**
Illiterate Indian Joe Whiteskunk felt at home in alien territory

THE REPORTER . . . . . **CHAD OLIVER 107**
George Hartley didn't like Mars—nothing ever happened there!

VERMIN . . . . . **WILLIAM MORRISON 117**
The giants hated humans, and in turn humans had their own hates

DISPLACED PERSON . . . . . **MACK REYNOLDS 127**
To die—to live? Charlie Capp had to save himself from space!

Short Story Encores

THE COSMIC PANTOGRAPH . . . **EDMOND HAMILTON 101**
Must Man die, as Doctor Robine believes, with his own Universe?

URANIAN JUSTICE . . . . . **WILBUR S. PEACOCK 113**
On a strange planet, the odds against a killer prove to be great

VIA ASTEROID . . . . . **GORDON A. GILES 133**
Here are day-by-day reports of the first Earth expedition to Mars

A Department

COSMIC ENCORES . . . . . **THE EDITOR 6**
Where science fiction readers and the editor talk matters over

"Beyond Pluto," Copyright, 1932, by Gernsback Publications, Inc., and originally published in Summer, 1932, Wonder Stories Quarterly. "The Cosmic Pantograph," Copyright, 1935, by Continental Publications, Inc., and originally published in October, 1935, Wonder Stories. "Uranian Justice," Copyright, 1940, by Better Publications, Inc., and originally published in Fall, 1940, Captain Future. "Via Asteroid," Copyright, 1937, by Better Publications, Inc., and originally published in February, 1938, Thrilling Wonder Stories.

FANTASTIC STORY MAGAZINE published quarterly and copyright 1951 by Best Books, Inc., 1125 E. Vaile Ave., Kokomo, Ind. Editorial and executive offices, 10 East 40th Street, New York 16, N. Y. Subscription: (12 issues), $3.00; single copies, $.25; foreign postage extra. Entry as second class matter pending at the post office at Kokomo, Ind. Material is submitted at risk of the sender and must be accompanied by self-addressed, stamped envelopes. All characters in stories and semi-fiction articles are fictitious. If the name of any living person or existing institution is used it is a coincidence. September, 1951. Printed in the U.S.A.

Be Protected in case of SICKNESS or ACCIDENT

HERE'S AN AMAZING NEW HOSPITALIZATION PLAN

NO TIME LIMIT
ON HOSPITAL ROOM AND BOARD
Policy Pays as Long as You Stay!

MAIL COUPON BELOW

Accidental Death and POLIO COVERAGE INCLUDED!

COSTS ONLY 3¢ A DAY

Individual or Family Eligible . . . Birth to Age 70

This is it! Sold only by mail! America's newest and greatest Hospitalization Plan. Amazing coverage! Lower cost! Good anywhere in the U.S. It's exactly what you need!

If you get sick or have an accident, you may go to any recognized Hospital (Rest Homes, Sanitariums, Government Hospitals excluded). Your NORTH AMERICAN Policy will pay for Hospital Room, Board and General Nursing Care at the rate of **$150.00** PER MONTH. What's more, you can stay as long as necessary. There's NO TIME LIMIT. Now, in case you need SURGERY, due to sickness, accident or disease . . . the Policy pays lump CASH for 74 specific SURGICAL OPERATIONS. What a help . . . what a blessing it is to fall back on this kind of coverage in time of need.

LOOK WHAT ELSE YOU GET!

For ACCIDENTAL DEATH Policy pays in lieu of other benefits **$500.00** . . . with a special provision giving 4 times the amount—or **$2,000.00**—for death resulting from accident while traveling on a common carrier. But this isn't all. For still more protection, seldom included in ordinary Hospitalization—you and insured family members also get POLIO coverage in lieu of other benefits —**$500.00** to cover HOSPITAL BILLS, **$500.00** for MEDICAL TREATMENT, **$500.00** for ORTHOPEDIC APPLIANCES.

Then, too, there are liberal Benefits in lieu of others for accidental LOSS OF HANDS, FEET OR EYES; Benefits for EMERGENCY HOSPITAL TREATMENT for accidents involving no confinement, etc. Imagine all this wonderful value and coverage at a rate for adults of only about 3c a day, 1¼c a day for children to age 18 . . . and CHILDREN GET FULL BENEFITS. (Maternity Rider is available at small additional charge.)

IMPORTANT—The NORTH AMERICAN POLICY pays you FULL BENEFITS regardless of money you collect from other insurance sources for the same disability, including Workmen's Compensation. WE PAY DIRECT TO YOU! This means, if you are already carrying Hospitalization—be smart . . . buy this additional Policy, with its extra cash benefits, to protect yourself against today's higher Hospital costs. Don't Delay! MAIL COUPON BELOW for FREE DETAILS. No Agent will call!

NEW FEATURES! EXCLUSIVE EXTRAS! NO FINER PROTECTION FOR YOU & YOUR FAMILY

SICKNESS OR ACCIDENT

SPECIFIC SURGICAL BENEFITS

LOSS OF HANDS, EYES, FEET

INFANTILE PARALYSIS BENEFITS

FREE! MAIL THIS COUPON

Truly this is a remarkable Hospitalization Plan. Investigate it! Buy it! Mail coupon for complete details.

NO OBLIGATION. NO AGENT WILL CALL.

North American Mutual INSURANCE COMPANY

Dept. 951-TG, North American Building, Wilmington 99, Delaware

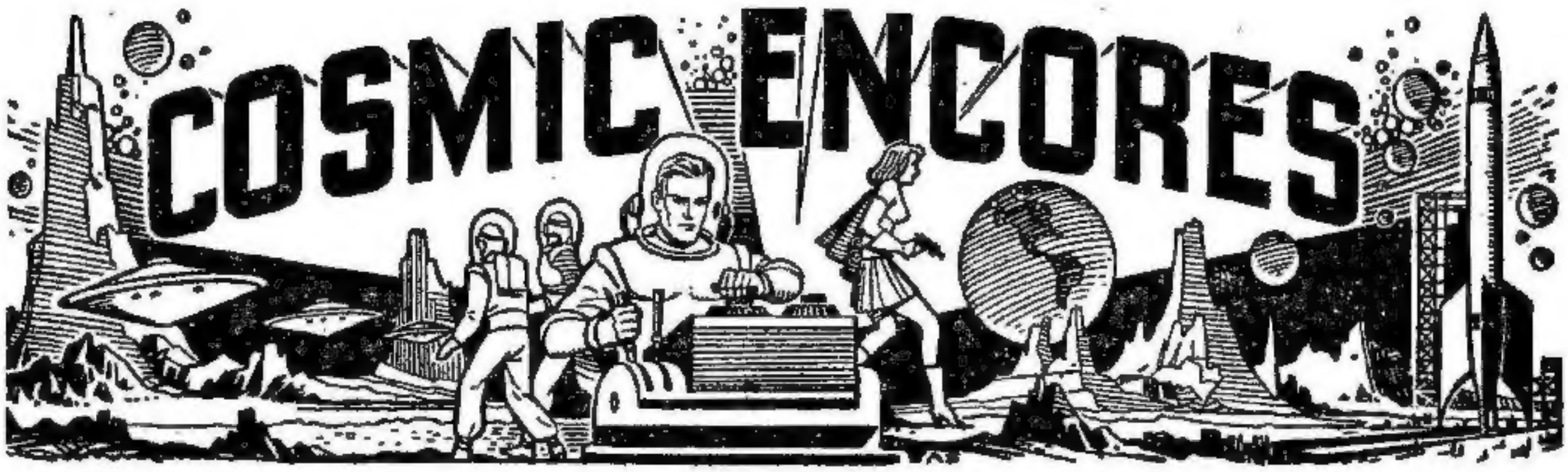
Please send me without obligation full details about the new North American Hospitalization Plan. No Agent will call.

Name .....

Address .....

City ..... State .....

(Paste on penny postcard or mail in envelope)



A DEPARTMENT WHERE SCIENCE FICTION READERS AND THE EDITOR MEET

AN UNEXPECTED and highly interesting development has recently been reported by the research department of one of our two greatest radio networks. In the constant battle to eliminate or at least control static in amplitude modulation broadcasting, what can only be termed practical astrology is currently being practised.

It has been found that the amount of static varies according to the near approach of the planets to Earth and that greater power is required on the part of the broadcaster to enable listeners to tune in without acquiring mat-burns on their ears. When any of the planets are in transit—i.e., when the orbit of one intersects that of another in relation to Earth as in a solar eclipse—static is even more pronounced.

Astrology in Action

In short, broadcasting power, save in the case of static-proof frequency modulation, is being regulated in direct accordance with the positions of Mercury, Venus, Mars, Jupiter, Saturn *et cie.* And if that is not astrology in action we don't know what it is.

Scoffers may attempt to palm it off as astronomy, tangential outgrowth of the older science. But astronomy is the direct study of heavenly bodies per se in an effort to determine through observation the nature of the universe.

When it comes to Earth-control exercised by these bodies we are back in astrological boundaries.

The original and still-existent purpose of astrology is to discover the effects of the planets and stars upon human destiny and that of our world. It was, of course, first developed by those great-granddaddies of all stargazers, the Chaldeans, who must also have developed the great granddaddies of all cricks in the neck, judging by the amount of time they spent looking upward at the night sky.

An Early Science

The Babylonians absorbed this earliest of sciences—for surely any theorem or set of same that begins in direct and painstaking observation and draws its conclusions from available results must be called a science—and from Babylon it spread to India, China and ultimately Greece, whence it pervaded the still primitive Mediterranean world.

Its uses in these ancient civilizations and cultures were dual. Primarily it offered a substitute and more logical collateral to the still more ancient art of divination—usually practised through the examination of the liver, heart and entrails of various sacred animals or birds.

The logic of the priests and their followers is easy to follow. To them all life came from the heavens or the earth. Everything useful grew from the soil but such growth was entirely governed by the heavens. Sun, rain, wind and drought were all from the skies. Hence it seemed only reasonable that they were governed in turn by the stars, the sun and the Moon.

Various systems were worked out and astrology became entangled with almost all of the old religions, its importance varying in various countries and various cultures. And since the Ancients, considering they knew nothing of lenses and had no telescopic vision aids, had amazingly accurate knowledge of the movements of our Solar System they were able to work out intricate systems of star-control on their own. Religious astrology was and in

(Continued on page 143)

IS THERE *Life* ON OTHER PLANETS?

Strange Cosmic Forces

HAVE YOU EVER, in the stillness of night, gazed at the heavens overhead? If so, you may have wondered if there are living things—perhaps human beings—moving about on the numerous worlds in the vast reaches of space. Do you know that the entire universe is *alive*, vibrant with an intelligence and an energy that can be harnessed by man on earth?

What is more important, is that this Cosmic mind-force is also *within you*. You can use it to become more positive, vibrant, and exuberant with ideas—to achieve greater things in life.

Write for FREE Book

The Rosicrucians (NOT a religious organization) have for centuries investigated and preserved the unusual facts about the mysteries of life and of the universe. These truths they make available to sincere seekers *everywhere*, without discrimination. They offer you a FREE book, *The Mastery of Life*, which tells how you can learn to remake your life by converting hopes into realities. For your free copy, write *today* to:

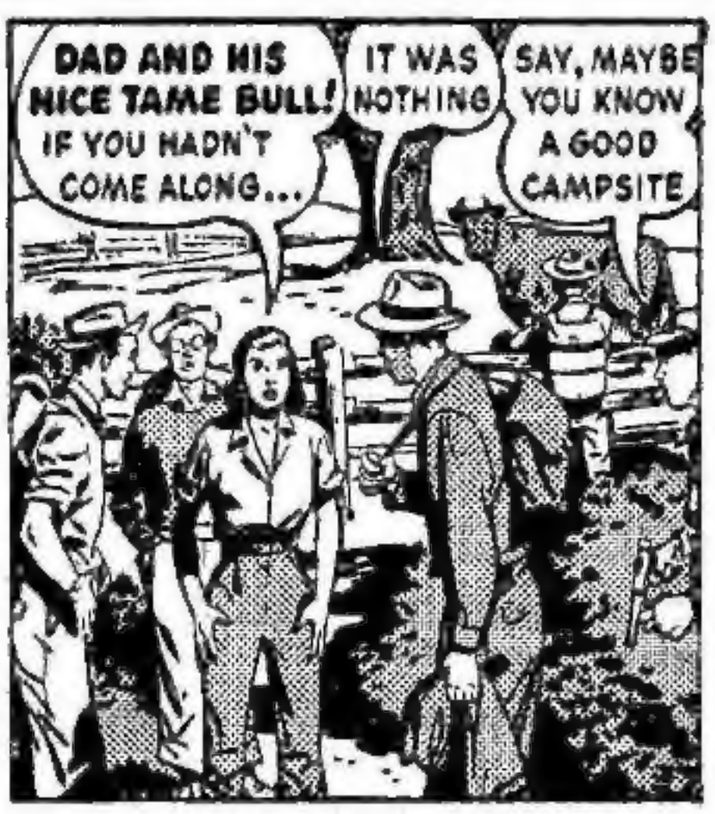
Scribe Z.V.T.

***The* ROSICRUCIANS (AMORC)**

San Jose, California

IT WAS NIP AND TUCK FOR JACK UNTIL . . .

JACK ROSS AND HIS GROUP OF STATE FORESTRY STUDENTS ARE LOOKING FOR A CAMPSITE AT THE END OF A DAY-LONG HIKE WHEN . . .



UNLESS YOUR MEAL'S TOO FAR ALONG, WE'D LIKE YOU TO JOIN US FOR SUPPER
SOUNDS WONDERFUL! WE CAN CLEAN UP IN A FEW MINUTES
ONE HOUR LATER

SAY! I GO FOR THIS BLADE! NEVER ENJOYED A MORE REFRESHING SHAVE
THIN GILLETTES ARE MIGHTY POPULAR ON THE CAMPUS, THEY'RE REALLY KEEN AND LONG LASTING

ENJOY EASY, GOOD-LOOKING SHAVES AND SAVE MONEY TOO. USE KEEN, LONG-LASTING **THIN GILLETTES.** THEY'RE PRECISION MADE FOR YOUR **GILLETTE RAZOR** AND PROTECT YOU FROM THE DISCOMFORT AND IRRITATION CAUSED BY MISFIT BLADES. ASK FOR THEM IN THE TEN-BLADE PACKAGE WITH USED-BLADE COMPARTMENT
THIN Gillette 10 BLADES
10-25¢
4-10¢
NEW TEN-BLADE PACKAGE HAS COMPARTMENT FOR USED BLADES

BEYOND PLUTO

Rare platinum coins from an Egyptian tomb lead scientists to a hidden land that holds the key to the stars

A Novel by JOHN SCOTT CAMPBELL

Copyright, 1932, by Gernsback Publications, Inc. Originally published in Summer, 1932, Wonder Stories Quarterly.

I

WHEN Dr. Cummings and I came down the coast from Rasel Milah we were thoroughly ready for a vacation. With the last page of the manuscript our work, which had kept us over

eight months in the highly mineralized and little-known mountains of Cyrenaica, was concluded.

Cummings, on our first night in Cairo's famous Hotel Shepheard, relaxed comfortably with the remark, "Just think, Lawrence, another fortnight and we will be in London, proof-reading our text. *Recent Investigations on the Metaphoric Rock Deposits of North Africa* by G. A. Cummings, F.R.S., M.A., and D. W. Lawrence, M.A. How does that sound?"

The two days spent in Cairo, disposing of our equipment and packing specimens, passed quickly and on the third we were ready to leave. Then Fate intervened.

I was at the cigar stand of the hotel when my attention was attracted by two men at the next counter. The taller I at once recognized as Lord Mitchell H navan, well known to the archaeological world as the discoverer of the key to the Cretan sherds. His companion, a scholarly and rather preoccupied person, I mentally classified as Professor Sheridan Milroy, Britain's dean of dead-language scholars.

From the deep tan of their skin they had evidently been upriver, engaged in one of their rather dangerous and decidedly dirty excavating expeditions in some royal graveyard. Inwardly congratulating myself upon having chosen the safe-and-sane profession of geologist, I started toward the lobby when I was halted by hurrying footsteps and Professor Milroy's voice.

"I say, pardon me, but aren't you the Mr. Lawrence who was working in Cyrenaica?"

I admitted the charge, adding that Dr. Cummings was the senior member of our party. Professor Milroy seemed delighted. "Excellent, sir, and most fortunate—our meeting here, I mean. . . . And did you visit those ruins on the coast west of El Milah? Remarkable structures, resemble the Scottish dolmens, but Phoenician, undoubtedly Phoenician. I have read there are burial vaults that have been sealed since the Third Dynasty. The author I refer to claims that he visited the spot in the Twelfth Century B.C. and that—"

AT THIS instant Lord Hanavan arrived. "My apologies, sir, but Professor Milroy seems to have taken you by storm." Then to the other, "Wait, my dear Sheridan, give the gentleman a

Land of Illusion

THERE is a magic about the Valley of the Nile, with its incredible relics of civilization, so vast and so far removed in time from the present as to be almost the relics of some alien people, that has primed the creative pumps of the imaginative for centuries. And since the discovery of the Rosetta Stone opened up the path toward deciphering of the ancient picture-writing to modern scholars this interest in the long-dead land of the Pharaohs has been geometrically intensified.

At the time BEYOND PLUTO was written the unveiling of Tut-ankh-amen's tomb by Lord Carnarvon and Howard Carter was still fresh and remarkable and Ancient Egypt had not been blotted out in the public imagination by the Depression, Hitler, World War Two and the Iron Curtain. In fact it seems doubtful that the similarity in names of the Lord Carnarvon in fact and the Lord Hanavan of this story was in any way coincidental.

But in his most imaginative moments we suspect it unlikely that the late and eminent British peer ever dreamt of such fabulous findings as those which fall to his fictional counterpart and to the four other prime members of his expedition to the land beyond the Sobat River—known to the ancients as the Soaht. It is probable that Mr. Campbell and Mr. Campbell alone ever conjured up the remarkable lost world of Zongainia.

It is possible that, thanks to the tens of thousands of RAF and AAF pilots who crisscrossed this area during the most recent "Great War," no such land as Zongainia could find room for existence today even in the imagination. The dream has been erased by the realities of aerial logistics. But when this story was written the War still lay almost a decade in the future and we can only wish wistfully that it had remained there. There aren't enough Lost Worlds to go around any more—as readers of this story should be the first to agree.

—THE EDITOR.

chance to recover himself. Why, there have been no introductions yet!"

This vital ceremony over, Hanavan explained that they had both been interested in the coastal regions on the Cyrenaican peninsula for some time, in fact ever since Professor Milroy had accidentally run onto a travelogue on papyrus in the Louvre.

Of course I had to disappoint them. Our budget was altogether too slim to allow side trips, even in search of worthwhile geological specimens. As I was explaining this and suggesting they talk to Dr. Cummings that person himself appeared at the door. Introductions were performed again.

After hearing a repetition of our financial excuse Lord Hanavan remarked, "You know, we are geologists ourselves in a way. Specialize in man-made stones, though. Run up against things lots of times that I fancy you don't find in sedimentary deposits."

"Well," laughed Dr. Cummings, "we find plenty of the bizarre too—and human relics that were dust before your mummies' great-grandfathers were born. By the way, where have you been excavating—at the Valley of Kings?"

"No, farther up," answered Hanavan, "near Assuan, directly opposite the Island of Philae, in fact. We've been at it some time on a rumor of another temple, buried in sediment and sand, that rivals Philae itself for size. And, you know, we found things there that Philae doesn't have, I'll wager. But I say, can't you come up to our rooms this evening for a smoke? I can tell you all about it then. Sort of get it off my chest."

As may be guessed we accepted the invitation with alacrity. Taking Professor Milroy's arm in a paternal sort of way Hanavan led the way to the street door, while Cummings and I went into the lobby.

Dr. Cummings and I were delighted at this opportunity of getting acquainted with the pair. Lord Hanavan was internationally famous among archaeologists for his work in Egypt and Mesopotamia.

DAVID LAWRENCE
American geologist, who tells this story of modern man's first successful flight to the stars and back

His paper on Cretan hieroglyphics is universally regarded as the final word —while the collection of relics he has brought back from his numerous expeditions is unsurpassed.

Professor Milroy, his colleague, while of the second magnitude when compared to Hanavan, was a first-class antropologist himself, numbering among his accomplishments a splendid knowledge of dead languages including Greek, Egyptian, Sanskrit, Ancient Persian and Hittite, as well as most of the tongues and dialects of the Orient in use today. His ability at learning foreign languages was uncanny. He seemed to grasp complications by a kind of instinct and nothing delighted him more than to study some intricate native patois, inventing phonetic spelling and classifying grammar as he went along.

With the coming of evening and its attendant calling of the muezzins from the slender mosque towers, Dr. Cummings and I ascended to Lord Hanavan and Professor Milroy's rooms on the floor above. I overlooked, across a narrow garden, the native quarter of the

city. One could in fact see into the windows of the nearer mud-brick buildings.

Sitting down to our iced tea and cigars, Dr. Cummings and I listened with rapt interest to Lord Hanavan's story.

"You see," he began, "all my life I have had a desire to explore the unusual, the mysterious. I suppose that is why I am an archaeologist. In any case, when I heard peculiar native legends concerning a certain spot near the river at Philae, I hastened there at once. Ordinary excavating through sand is bad enough but water seepage made our pit all but untenable in spite of the fact that we had our pumps working twenty-four hours a day.

"And then, no sooner did we get started than the natives living nearby became hostile. They tried to set fire to timbers in the shaft and one night we caught two devils with a maul about to wreck the pump housing. After that episode a good watch was kept—either Dr. Milroy or myself sitting up nights in addition to a couple of native sentries.

"At first the job was rather discouraging, what with river seepage and interference by man. But as time went on a number of very interesting things came to light. After having descended about nineteen feet we came upon a layer of flat stones which turned out later to be the roof of a building. The entire structure was packed full of fine silt, which probably helped preserve the contents by stopping oxidation.

"Well, after digging through about eight feet of this, we came upon a layer of rotten wood, crisscrossed by what had once been iron bands but were now only layers of rust. Side digging disclosed that it was a big chest. Inside, mixed with the river mud, we found remnants of papyri, rotted beyond all possibility of reading, and a quantity of square platinum coins, stamped with strange characters. The oddest thing—they were milled around the edges like a gold sovereign.

"You may imagine how excited we were by this time but as night was coming we decided to wait the morrow before continuing. Just before we climbed out for the day one of the diggers stumbled against something under the foot of water and mud which covered the floor. Picking it out we discovered it to be a well-preserved baked-clay tablet, like those the Egyptians used for writing, completely covered with hieroglyphics.

"That night there was no sleep for anyone. First we went after the papyri but they were hopeless—the ink had faded and the sheets of the roll were melted together into a solid cylinder. The coins were better preserved. Here" —he dug in his pocket—"are some of them." He handed one each to Dr. Cummings and to me and then continued.

"The inscriptions upon them were quite unintelligible even to Dr. Milroy, a thing which caused him much chagrin —eh, Sheridan?" He nudged his companion, who looked anything but pleased.

"However, the strangest thing about these coins is their neat modern appearance. Most old coins are a sort of rough oval with the very rudest of characters stamped on their faces. But these, as you see, are exactly square and bear a finely engraved design, one side of which looks like a bas-relief of the moon, while the other is covered with very complicated characters unrelated to any known inscriptions. There is no sign of a 'picture writing' influence, for nowhere can we find even the remotest resemblance to natural objects.

"You can see for yourself how different these are from Egyptian or Phoenician money. And then they are made of platinum—a metal hardly ever used in the ancient world. But enough for the coins. The clay tablet was easier. In fact Milroy translated at sight, so disgusted was he with the money. Later he made a written translation."

HERE Lord Hanavan interrupted his narrative again and handed Dr. Cummings a sheet of paper. He read it

aloud. "Isis speaks and the words of Isis go as a thunderbolt across the world. Though the power of the Roman presses sorely upon the neck of Egypt and our former greatness is as dust, the Gods of Egypt are not gone—they live and in battle they turn the lightnings upon the legions of their enemies and slay.

"For has it not been said by Has-id the Priest, who went with our oppressors to the end of the Great River and beyond until the hands of Horus and Ra stopped them? Did he not return with the news that our Gods and the kas of our ancestors have returned to the Earth and that far to the South they do repulse the might of Rome and slay her armies even as the desert lion rends the hyena who ventures too near?

"And has Has-id not returned from the South with a great treasure of the white metal that is rarer even than gold, that the impoverished of Egypt may have food? Aye, such is so, and even now we, the faithful remnant of desecrated Philae, prepare to go up the River to join our Gods. Beware, oh might of Rome! And beware, oh ye who would venture to the promised land! For the temper of Isis is short and her lightnings smite quickly."

"Well," exclaimed Cummings as he finished, "this *is* interesting! What else did you find?"

"Nothing," replied Lord Hanavan. "We didn't go to bed until after one and of course forgot all about setting a guard. Next morning we found the pumps smashed and the pit filled with water and half full of mud that had slipped from the sides. That was the last straw. We could not redig that shaft for weeks and, as the rainy season was coming, we simply had to give the job up for the year.

"Well, we swore about it a bit and then started to pack up, when up the river shore came one of the natives. He was a particularly ugly old fellow named Achmed, who owned a little farm nearby and seemed well supplied with money, in contrast to the other poor wretches. After the usual courtesies this person asked us why we were leaving. I sensed right away that he was responsible for our damaged pumps. But you know, there was no evidence, so I controlled my desire for revenge and told him that we had found everything we wanted—including a most important tablet.

"I had expected this would disturb his smug contentment but, by Jove!—I never anticipated such a demonstration. He simply went up in smoke and demanded to see the tablet on pain of some terrible doom. But we laughed and told him he would land in jail if he kept that up. At that he calmed down and said that he would bide his time. When we left we knew there was at least one Egyptian who didn't bear us any love.

"Well, we packed up and came down to Cairo—that was three days ago—and we are resting on our oars, as it were, until we can make further plans. We are going to visit the library here and see if we can locate any other records bearing on that Roman expedition. They have, you know, many papyri which escaped the fire at the Alexandria Library."

Dr. Cummings fingered one of the coins. "You seem to have run right into a real Oriental mystery here. I wonder what there is up the river? I suppose—"

AT THAT instant his words were cut short by the crack of a rifle and the splintering of the window pane. Lord Hanavan jumped to his feet and switched off the light while Professor Milroy, belying his pacific appearance, drew a wicked-looking automatic and leaped to the window. Outside there was utter silence. No light showed in any of the windows across the court whence the shot had come. Apparently the noise had passed unnoticed.

There was a moment of silence in the room. Then Lord Hanavan whispered, "Achmed! It must be! To think he would go to such extremes!"

As he said this Dr. Cummings, who was standing near the door, stepped

quickly over to Lord Hanavan and whispered to him. "Someone breathing . . . outside the door . . . waiting for you to come out . . ."

The other nodded. "That's good." He paused and added, "Rotten way to treat you . . . like this . . . when you are my guests, but . . ."

I felt his smile through the darkness. Stepping over to where Cummings and I stood, Hanavan whispered his plan to us. "I'll wrap my coat about a pillow and push it out the door. Then, when whoever is there shows himself, we'll both fire." This to Milroy, who nodded silently.

"Then," continued the archaeologist, "we'll rush him. Have either of you a gun?" Cummings and I shook our heads.

Hanavan went to a drawer. Coming back in a moment he pressed something cold into my hand. "Ancient Nubian dagger," he whispered, "very efficient." He gave something similar to Dr. Cummings. A moment later he had folded his overcoat about the pillow, placed a hat upon the top and was slowly opening the door.

The hall was faintly lighted from the window at one end. It seemed unoccupied when suddenly a bare human arm with a wicked curved knife gripped in the hand drove down and into the coat. At the same instant Lord Hanavan's and Dr. Milroy's guns spoke. Together we leaped into the hall. Halfway down toward the farther end ran a man crouched low and holding one arm against his body.

Lord Hanavan shouted at him: *"Stop or we fire!"* But the fugitive paid no attention. Then, just as he was at the fire-escape window, Professor Milroy shot. With a cry of pain the man went down and lay kicking on the floor. We rushed to him where we found that beyond a shattered wrist and a flesh wound in the calf he was unhurt.

As we bent over him there came a commotion from behind. The night clerk, a native policeman and a number of guests of the hotel surrounded us. Lord Hanavan explained tersely what had happened. The would-be assassin was taken to the room while an ambulance was sent for. Here Lord Hanavan proceeded to question him.

At first the wretched native would only moan, and cry that he was dying. But finally, under Hanavan's insistent quizzing, he burst out, "Yes, I will tell. I will speak truth. As Allah is my witness! Here I am dying for that dog Achmed, who is not even a true believer. He was to pay me two pounds to stab whoever came from the door first after he had shot one of you. But he missed and now I am to pay for it with my life! *Allah! Il' Allah!* Allah is the only God and Mohammed is . . ."

The ambulance patrol sounded outside. Lord Hanavan shook the native. "Why did Achmed wish to kill us?"

"Because you have the tablet," cried the man on the bed. "I myself do not know what it means but it is priceless to him. He is . . ." He paused and glanced about.

Sensing his thoughts Hanavan said, "You are beyond his power now; Speak while you can."

Writhing with the pain of his wounds and the fear of the hereafter he replied, "He is the High Priest. He seeks to receive messages from the Old Gods who walked the Nile Valley many years ago. He is the Priest of Isis."

At this instant the policemen entered the room and shortly afterward they carried the native out on a stretcher, cursing the name of Achmed and crying to Allah for mercy.

II

I DO NOT think any of us slept the rest of that night. We sat in Hanavan's room till near dawn, consuming innumerable cigars and trying to figure out what it was all about. Hanavan, who was the most experienced of us in Oriental ways of thinking, was of the opinion that we had simply crossed with some obscure religious sect. But the

peculiar tablets and the still more peculiar coins hinted at something deeper.

Finally, after many hours of fruitless discussion, Dr. Cummings and I returned downstairs to our rooms, where we spent the rest of the night talking to each other and thinking to ourselves.

About ten the next morning we received a note from Lord Hanavan stating that he was going to the library and wished our company. Rather glad to continue with this mystery we sent word that we would be down at once. Ten minutes later we were en route in a cab.

At the library Lord Hanavan's name was sufficient to gain us entrance to the innermost vault. As it turned out it was just the place that we wanted to visit. The curator escorted us through the reading rooms, then down into the binding rooms in the basement, past rows of dustladen mummy cases and unopened papyri, then down again into the little-used sub-basement where the Alexandrian papyri were stored. It was a musty place, fairly exuding the odor of centuries. The curator left his lamp and returned to the upper floors. We were alone with the past.

Professon Milroy was in his element. Passing down the long shelves of cylindrical papyrus cases he dusted off and read the name on each. At last he stopped with an exclamation of pleasure and opened a crinkly roll. It was inscribed in Latin, which Professor Milroy read as easily as English. After a moment he replaced it in its receptacle saying, "The expense account of one of the Roman Satrap's hunting parties in Nubia. Ah, this looks interesting—'*Report of the Expedition under Iulius Marcus to the land of Punt.*'"

After reading several pages he replaced the roll. "Nothing here." He scanned the next roll and similarly replaced it. Then his eyes lighted upon something of interest. Unrolling the crackling paper he read silently, then his face lighted up.

"This is it—as I live and breathe we have before us the very thing!" Holding it before the lamp he read, "After ascending to the headwaters of the River Soaht from the Nile we entered into a country of many people, including Egyptians who have fled from Roman justice. Living with them was a strange race, believed to be immortal. But this was not so, for we killed many in battle.

"But, by the grace of an evil god who prevailed against us in this far land, we were driven back and attacked by a wondrous sort of Greek fire which shattered all near it as a thunderbolt. And so, failing to receive aid from the noble Satrap, we retired down the Soaht unto the Nile and thence into Egypt. It is recommended that a stronger force be sent to this land to conquer it for it is rich in gold and jewels and the rare white metal from the North."

He paused. "This is the very thing, Mitchell. We have it!"—this to Lord Hanavan. Then "Soaht—*Soaht*. What river is that, I wonder? I seem to have heard of it before." He folded up the roll, his brows puckered in thought.

Then, "*Ah!* I have it. It means the Sobat River—a tributary of the Nile that enters well below the tenth degree, as far south as Addis Ababa if I am not mistaken. Well, Mitchell, here is our little mystery all solved. A camp of Egyptians fled from 'Roman justice.' I'll wager there'll be something there for an archaeologist." He rubbed his hands together.

Lord Hanavan, taking the roll, replaced it. "Yes, that explains everything," he said, "except the writing on the coins. It is not Egyptian."

We made our way from the sub-basement in silence. As we passed through the relic-filled stack room Professor Milroy stopped a moment to examine a particularly ghastly mummy when Lord Hanavan seized his arm and pointed down a long aisle where the shadows were darkest. "Something . . . moved . . . there," he whispered.

Professor Milroy drew his automatic. Leaving the lamp on the table we slunk into the shadow and waited. After a

moment there came down the dark aisle between the book stacks a shuffling sound. For an eternity, it seemed, that sound approached and presently I thought I detected faint breathing. I felt the hair rising on my head and a weird tingling go up my spine.

The others waited, breathless. Dr. Cummings was holding a white club-like object he had seized from the table as he passed. Second by second the shuffling came nearer. It was evidently

The rolling current of humanity abruptly halted, and thousands turned toward the cause of disturbance

in the next aisle. Stooping, Lord Hanavan peered between the rows of books on a shelf but evidently saw nothing. Finally the footsteps were opposite us —then they stopped.

Silence—tangible, horrible—set in. The beating of my heart seemed like a pile-driver. Not the faintest echo came from the streets above. I saw that Lord Hanavan was edging toward the end of the case where he could look down the next aisle. Dr. Cummings, Milroy and I followed and I observed with a sort of horrible fascination that the geologist grasped a human thigh-bone in his hand.

FINALLY Hanavan reached the end of the bookcase, where he slowly extended himself around. Milroy waited, his fingers becoming white as he grasped the gun. Then, like lightning, Hanavan swung his own gun up and shouted, "Throw up your hands—I have you covered!"

I commenced to run toward him when, from the next aisle, there came a clatter of falling objects and a voice. *"Gott im*

moment there came down the dark aisle between the book stacks a shuffling sound. For an eternity, it seemed, that sound approached and presently I thought I detected faint breathing. I felt the hair rising on my head and a weird tingling go up my spine.

The others waited, breathless. Dr. Cummings was holding a white club-like object he had seized from the table as he passed. Second by second the shuffling came nearer. It was evidently from the streets above. I saw that Lord Hanavan was edging toward the end of the case where he could look down the next aisle. Dr. Cummings, Milroy and I followed and I observed with a sort of horrible fascination that the geologist grasped a human thigh-bone in his hand.

FINALLY Hanavan reached the end of the bookcase, where he slowly extended himself around. Milroy waited,

The rolling current of humanity abruptly halted, and thousands turned toward the cause of disturbance

in the next aisle. Stooping, Lord Hanavan peered between the rows of books on a shelf but evidently saw nothing. Finally the footsteps were opposite us —then they stopped.

Silence—tangible, horrible—set in. The beating of my heart seemed like a pile-driver. Not the faintest echo came his fingers becoming white as he grasped the gun. Then, like lightning, Hanavan swung his own gun up and shouted, "Throw up your hands—I have you covered!"

I commenced to run toward him when, from the next aisle, there came a clatter of falling objects and a voice. *"Gott im*

Himmel! Was ist das? Don't shood mit dot! Id might go off!"

Hanavan lowered his gun in amazement and the next instant a stout, bespectacled gentleman in swallowtail coat and bowler hat appeared. He at once produced a vast white handkerchief with which he mopped his forehead vigorously. "Vot kind uf blace is dis ven

beeple come around like highwaymans mit guns?"

The reaction after those few tense moments was great. Milroy, Cummings and I leaned against the shelf while Hanavan interrogated the newcomer. "Sorry, old man, really. But we were attacked by an assassin only last night so, of course, hearing steps in what we thought a deserted cellar . . "

"Ach vell, den id's all right. Bud, *mein Gott,* you did giff me vun scare. I thoud sure dot I vas going to be killed." He hesitated. "My name is Professor Ludwig Pfeiffler, University of Heidelberg. Und whom have I the pleasure uf meeting?"

Lord Hanavan introduced us all and then suggested we ascend to the street. While doing this, Professor Pfeiffler explained his presence in the library.

"In the University," said he, "I hold der chair uf Biology und Physiology. Dis trib is mein first vacation in five years. I travel through France, Italy,

Himmel! Was ist das? Don't shood mit dot! Id might go off!"

Hanavan lowered his gun in amazement and the next instant a stout, bespectacled gentleman in swallowtail coat and bowler hat appeared. He at once produced a vast white handkerchief with which he mopped his forehead vigorously. "Vot kind uf blace is dis ven beeple come around like highwaymans mit guns?"

The reaction after those few tense moments was great. Milroy, Cummings and I leaned against the shelf while Hanavan interrogated the newcomer. "Sorry, old man, really. But we were attacked by an assassin only last night so, of course, hearing steps in what we thought a deserted cellar . . "

"Ach vell, den id's all right. Bud, *mein Gott*, you did giff me vun scare. I thoud sure dot I vas going to be killed." He hesitated. "My name is Professor Ludwig Pfeiffler, University of Heidelberg. Und whom have I the pleasure uf meeting?"

Lord Hanavan introduced us all and then suggested we ascend to the street. While doing this, Professor Pfeiffler explained his presence in the library.

"In the University," said he, "I hold der chair uf Biology und Physiology. Dis trib is mein first vacation in five years. I travel through France, Italy,

Turkey, Palestine, und I half been spending the last few days here in Cairo, before I return home. In der library I am collecting literature on ancient locust blagues. Effen ven I am on vacation der University oxbects me to do some vork. Und I haff not die heart to disabboint id. Vell, gendlemens, if I do not seem too curious may I ask aboud yourselves? Und esbecially aboud dot assassin of last night."

By this time we had passed out of the library where Hanavan, after finding that Professor Pfeiffler had no engagement, suggested we all return to the hotel for lunch. In the cab he explained all that we knew concerning the mysterious coins and tablet, Achmed's hostility and the papyrus that we had recently found in the library.

"Vell," said Professor Pfeiffler when Hanavan had finished, "dot is inderesding, I must say. I subbose you are going to go op de riffer und dry und locade dis blace. My, I vish someding like dot vould habben to me so I could haff a goot reason for extending mein vacation. All mein life I vant to haff at leasd one goot adventure but so far de most exciding thing I haff done is shoot at katz in de night."

For some time we rode in silence. I noticed that Lord Hanavan was looking at Professor Pfeiffler as though sizing him up. However, he said nothing at the time and in a few moments we arrived at our destination. Here Lord Hanavan's first act was to bring from his room a large map of Africa.

While we were awaiting our lunch he traced the path of the ancient Roman expedition up the river until he came to the end of the known, the place where the map was a blank with a single dotted line running across—the surmised course of the upper Sobat. Here he paused, his finger resting on the blank —a space roughly four hundred miles through dense forests to the rolling plains—a place untraveled, avoided by explorers and shunned by the natives.

"It seems odd," mused Hanavan, "that the Egyptians should have gone there when no one else did."

At this moment the luncheon arrived and for a time conversation ceased. Afterwards, over the ever-present iced tea and cigars, we talked. Professor Pfeiffler listened. Indeed for some reason we already regarded him as one of us. Lord Hanavan was speaking.

"You know," he began, "this idea of a lost city in the jungle rather intrigues me. It has so many possibilities. I have always wanted to find such a thing. Now there seems a chance, and a good one, of making a really valuable archaeological discovery and at the same time having a little adventure of our own.

"I am in favor of going up the Nile, on to the headwaters of the Sobat and finding out just what is up there. Milroy and I can be the archaeologists—Dr. Cummings and Mr. Lawrence will attend to the geology of the region and"—he hesitated—"Professor Pfeiffler, if you can, we will be glad to include an expert biologist to note the flora and fauna. What do I hear, gentlemen? Is it agreed?"

The answering chorus was enough. Once our minds were made up there was was no back-tracking. Our conversation turned immediately to planning. What had, but a few moments before, been a group of chance acquaintances was now a united party, all working toward the common goal. Thus strangely does the mind of man rush him into bargains whose results he cannot hope to foresee.

Well, it was done. For better or for worse we had to see it through.

ONE who has never had a hand in planning an expedition cannot conceive the amount of thought necessary to get even a modest party like ours under way. In the first place its drain upon the exchequer was tremendous—money seemed to melt into nothing at every meeting. Yet we knew that compared to some exploring parties we were very economical.

To begin with it was necessary to buy an almost complete new outfit, for the equipment Lord Hanavan had used at Philae was too heavy to carry on a long trek. Then we had to have food, arms and ammunition, clothing, a portable radio sender and receiver, a thousand other accessories, small in themselves but mounting in the aggregate to many hundreds of pounds.

Lord Hanavan, however, met the financial situation with the same *sang froid* with which he faced other dangers. And so, near the end of the rainy season when the muddy flood of the Nile was beginning to subside, we were ready to start. Passage for five persons and three tons of equipment was secured on the steamer. Hanavan telegraphed Assuan, the end of the steamer schedule, for a smaller boat to be chartered. Then we were off.

The voyage up the Nile remains in my memory as a period of peace and tranquillity between the bustle of preparation and the work and worry of the long trip up the White Nile. Egypt dropped behind us league by league. The broad fertile belt near the Nile Delta narrowed into two parallel strips of irrigated farms, squeezed between the river and the bleak desert hills. On either side bluffs of red or gray rock arose, parched and hot in the day and silvery and mysterious at night. We sat out upon the deck for hours each evening, watching the moon rise and the land slip astern like a procession of ghosts wrapped in a dim mantle of mist.

At last the journey ended. The river was cut off from farther navigation by the low bulk of the Assuan dam. Here we must push forward on our own.

The boat for which Lord Hanavan had telegraphed awaited us at the quay above the dam. It was a native craft, some twenty-eight feet in length, powered with sails and a somewhat erratic gas engine and manned by five muscular and sullen Arabs.

Our luggage was immediately transferred to the boat from the steamer and then we disembarked. Lord Hanavan had some business of his own to attend to—arranging letters of introduction to the resident Governor at Khartoum in the Sudan—so the four of us, after getting our baggage safely stowed away, proceeded to see the sights.

Assuan is not a particularly interesting place. It is too far up river to receive any great bulk of tourist traffic so here was revealed the squalor of the Orient rather than its showy side. The bazaars were filled with unsavory-looking food and crude clothing and brassware instead of the finely-wrought trinkets on display in Cairo. Mingling with the Egyptians and Arabs were many black men from Ethiopia and the tropic jungles far south. It was as though the first cataract of the Nile marked the boundary between civilization and savagery. Here our real voyage was to begin.

That night we all slept on the boat, that being the only sure way of knowing our baggage would not disappear. Ali, the "captain," and his four odorous companions said their prayers and huddled together in the bow. We made ourselves as comfortable as possible in the tiny cabin aft.

Next morning we arose before dawn while the mists were still upon the river and the night-time chill kept the boatmen in huddled torpidity under their blankets. Prodding them into consciousness we all ate a little breakfast and then, starting the engine with two Arabs rowing and Ali at the stern sweep, we pushed off.

The voyage up the Nile to Khartoum was long and uninteresting. There were five rapids to portage, a task which necessitated the complete unloading of the equipment each time. There were stretches where the current was so swift that the four Arabs had to go ashore with the rope and haul the craft. But Ali, the captain, knew the river. So at last the low mud buildings of Khartoum appeared. Here Ali was paid off and his boat went shooting downstream to ac-

complish the return journey in a fifth of the time taken to ascend.

Once ashore Lord Hanavan and Professor Milroy went to the Governor's residence with their letter while Cummings, Pfeiffler and I remained with the baggage. The waterfront of Khartoum was as different from that of Assuan as that city was from Cairo. Here the Arabs were in the minority, their place being taken by Negroes from the lands to the south.

The substantial mud houses of Lower Egypt were partly replaced by the characteristic rush-dwellings of the equatorial regions. At Khartoum the Nile forked—its two great tributaries, the Bahr-el-Azrak, or Blue Nile, turning east, while the Bahr-el-Abiad, the White Nile, continued southwest. It was on this latter stream that our course lay.

III

WE HAD been waiting at the quay for perhaps half an hour when Professor Pfeiffler spoke to me. "Look over there—behind dose barrels. Vot an awful oxbression!"

I peered where he indicated just in time to see a dark Egyptian face, twisted into an expression of mingled horror and rage, vanish behind a heap of goods. Dr. Cummings who had seen the apparition too, smiled. "He doesn't appear to bear us any love, does he? I wonder who he is?"

At this instant Lord Hanavan and Professor Milroy returned, accompanied by a man whom they introduced as the Governor himself. The Governor of Khartoum has left a most pleasant impression in my memory. He was so tanned from residence in the tropics that, were it not for his clothing, one might have mistaken him for an Arab instead of an Englishman. He was much interested in our expedition and contributed some information about our objective.

"Now you speak of it I do seem to recall something about a lost colony of Egyptians—a sort of legend passed around among the blacks here. They talk of a country of enchantment and evil spirits in the South. They placed it rather definitely in the region northwest of Lake Rudolph—a place, by the way, quite unexplored and from what I hear a wild mountainous waste where even the savages cannot exist.

"You know, I have heard some of the oddest yarns about the district. When an army plane came up from Assuan some time ago a lot of the blacks came running to me, crying that one of the evil spirits from the South was after them. They speak about moving stars on cloudy nights and of parties of hunters that ventured over the cliffs that surround the place and never returned."

Lord Hanavan seemed impressed. "I wonder," he asked, "why no white men have gone to find just what base these rumors have?"

"Oh, there have been expeditions like that," replied the Governor, his face clouding. "Two. Both came through Khartoum. The first was in the summer of Fourteen, a surveying party of eight —they never came back. In Nineteen-fifteen a search party was sent out. They carried a wireless set and we received from them for several weeks, then messages stopped—we have never heard another word of them. In Nineteen-sixteen the excitement of the war prevented another search party and after that everyone seemed to have just forgotten."

This was ominous news but after our weeks of anticipation all it did was to send a thrill of excitement through us. Lord Hanavan assured the Governor that our radio would send messages each night and if we were overtaken by some unknown danger the outside world would at least know what to prepare for.

Final preparations consisted in procuring three long native canoes, each with four rowers. The Governor's assistance greatly facilitated matters here with the result that two days later we were being propelled swiftly upstream

by twelve muscular and taciturn Ethiopians.

As we continued south the rocky barren bluffs of the river gave way to tree-covered hills, while far to the southeast the bluish mountains of Ethiopia appeared. Dr. Cummings mentioned the face we had seen at Khartoum to Lord Hanavan. The latter seemed perturbed and ordered that two of our rowers should stand guard every night.

We proceeded onward thus for some days when one evening one of the Negroes, anchoring a canoe some distance downstream to fish, discerned a campfire about eight miles below and around a point of land. He said it lasted only about twenty minutes as though whoever were camping did not wish to be conspicuous longer than necessary to cook a meal.

As the fire was on the same side of the river that we were Lord Hanavan ordered an immediate transfer to the other bank. Next morning, before proceeding, we returned to our former encampment and found it was well that we had moved. The soft mud was covered with the tracks of sandaled feet.

Tht night we stayed on an island and Professor Milroy, a rifle on his knee, sat all night on a mass of brush jutting into the stream. However, he saw nothing but crocodiles. Four days later we tied up at the little station of Kodok. Sixty miles farther was the mouth of the Sobat River.

Three days after leaving Kodok our sturdy oarsmen turned the prows of the three canoes into the current of the Sobat River. Now indeed we were entering the unknown. White men had been up and down this stream but upon either bank the jungle was haunted only by savage beasts and the no-less-savage blacks.

We camped on islands whenever we could and at other times on the extremity of a bar where the boatmen drove herds of crocodiles away to make room for us. Our pursuers did not show themselves and after one of the canoes had drifted some seven miles downstream with Lord Hanavan watching the shore through his night glasses, we decided that they had given up the chase.

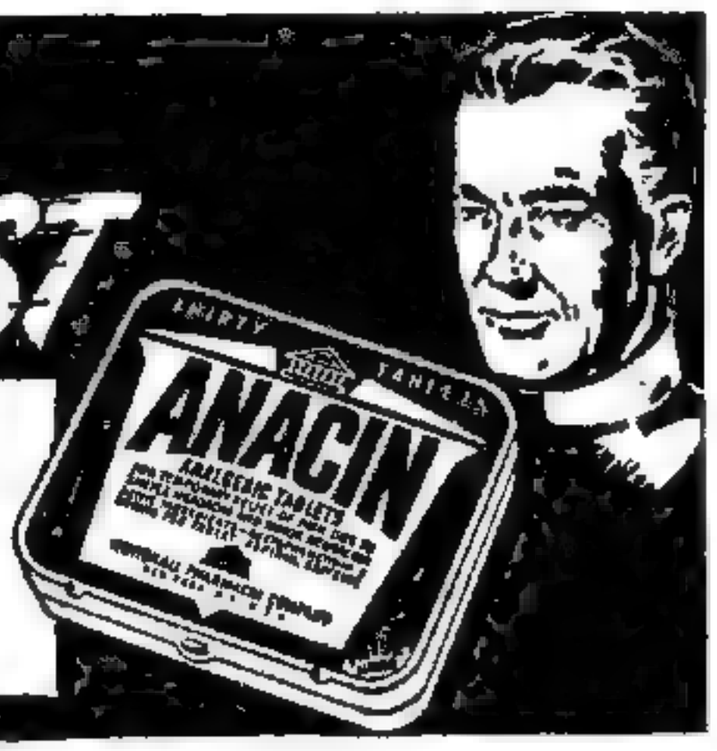
DURING the days we sat under improvised awnings, rifles across our knees, watching the dark jungle slip by. Occasionally we glimpsed forms regarding us from the trees. "Gorillas," said Lord Hanavan.

One hundred and twenty miles up the Sobat was the village of Nasser, where swarming dogs gave us a magnificent ovation from the moment we hove in sight. There were no white men in the town but we were told that at Akobo Post, forty miles up the Pibor River, a tributary of the Sobat, we might find one.

At first there was some argument about deserting the Sobat. Finally, one of the old natives said he remembered that several white men had journeyed up the Sobat many moons ago and that they had turned at the Pibor. That

[Turn page]

RELIEVES • HEADACHE
• NEURALGIA
• NEURITIS PAIN FAST



Here's Why...
Anacin® is like a doctor's prescription. That is, Anacin contains not one but a combination of medically proved active ingredients. Anacin is specially compounded to give FAST, LONG LASTING relief. Don't wait. Buy Anacin today.

decided us. Two days later we arrived at Okobo Post.

The lone Englishman who resided there remembered the two expeditions distinctly. Their radio was the first he had seen and he had arranged to keep their heavier equipment until they returned. He had it yet. The Englishmen, he told us, had turned off the Pibor River into a small unnamed stream, which led due south for an unknown distance.

Asked about the peculiar moving stars by Lord Hanavan, the man replied that though he had never seen such he had heard many tales from the natives. Some, he said, swore that they had seen the moonlight reflected from something shiny in the air like "a big fish."

We rested at Akobo four days as guests of the Englishman. Our canoes were given a thorough going-over and the rowers feasted heavily. Then, early in the morning, we started out.

The stream into which the canoes turned was so narrow that the towering trees touched together overhead, making a sort of green tunnel. The banks were less than thirty feet apart in places, while through the coffee-colored water we could see crocodiles and many strange and ferocious-appearing fish.

On the first night after leaving Akobo Professor Pfeiffler commenced to function as a biologist. We had stopped early so that gentleman, fashioning himself a net of mosquito netting, went down a jungle trail in search of insect life. He had not been gone ten minutes when we were startled to hear his voice calling lustily for help.

Seizing rifles we all rushed down the trail, fully expecting to find our poor friend's mangled remains in the clutches of a lion. However, when we at last came in sight of him, what should we see but the Professor rolling about in the grass, his arms fast around a tiny furry brown creature which had torn his coat to ribbons in its efforts to escape. We pounced upon the animal and tied it while Professor Pfeiffler was recovering his feet and breath.

"What is it?" we asked.

"Ursidae—a dwarf bear—a most rare specimen!"

Two days later the stream became so shallow that the rowers had to spend half their time overboard. The current had increased considerably and the more open character of the forests warned us that we were nearing the mountains. Finally, around a bend, we heard the roar of water and a few moments later found the way blocked by a beautiful cascade.

At a word from Lord Hanavan the boats were drawn to shore and we all disembarked. Hanavan, Cummings and two natives climbed at once to the top of the cliffs over which the stream poured. After a half hour they returned with the news that beyond the land sloped upwards through open woods and grassy glades and that the river became a mere babbling brook. We had reached the limit of water travel.

That night we completely unloaded the canoes and pitched the tent inside a boma of thorn-bushes. We cooked and ate our supper in silence and were about to retire when the leader of the blacks appeared from the place where they had been sitting. Saluting, he spoke to Lord Hanavan.

"We—" indicating the group around the fire behind him—"want to know what you going to do. Our women are waiting for us in Khartoum."

Hanavan, sensing that there might be some difficulty, replied, "We are going on south but we do not ask you to go if you don't wish to. You can camp here with our supplies and the canoes while we go.

"We will go for five days' march and then come back. You wait here fifteen days and then if we do not return, go back and tell the Governor at Khartoum to send aid. Understand?"

The native nodded and bowed again. As he turned to leave us there suddenly resounded a cry of fright from the other fire. One of the rowers was pointing upward through a rift in the trees and

crying in his tongue: "Flying devil! *Flying devil!*"

Springing to our feet we rushed to where we could see and there in the sky above we clearly saw a speck of light, like a brilliant star moving swiftly and silently across the heavens.

Lord Hanavan at once seized his glasses and peered at the strange object until it was out of sight. But he discovered nothing. Dr. Cummings suggested it might be a meteor but it left no luminous trail and it was going upward.

THE visitation left the blacks in a pitiable state and it was with great difficulty that Hanavan persuaded them to promise to stay the fifteen days. A little later we set the radio up and around ten p.m. got in touch with Khartoum. Lord Hanavan sent a message for the Governor, telling our location, the character of the land ahead and of the strange sight we had just witnessed. We conversed in code with the operator at Khartoum for some time and promised to send another message as soon as we returned—ten days hence.

Then, accompanied by the roars and howls of the myriad forms of jungle life about us, we made our beds.

The first glimmering of dawn found the five of us up and packing. We could carry only the most necessary things—rifles, ammunition, blankets, food and cooking utensils, compass and field glasses, a first aid kit and a Sept camera made up our total equipment. Ours was to be a survey trip, a dash over the mountains and back to determine further action. At about seven a.m. we tramped away, rifles slung on our backs, leaving the boatmen eating their breakfast of fish and monkey meat over a smudgy fire.

During the course of the day we ascended steadily through a park-like forest of majestic trees. Twice we sighted small deer a sure sign that we had left the swampy jungle definitely behind. The air became cooler and in the little open prairies we felt breezes. In the evening we camped at the foot of a gigantic tree in whose hollow bole we all huddled. Lord Hanavan's barometer indicated 3,100 feet elevation.

About noon the next day the forest suddenly ended and we found ourselves on the edge of a narrow rocky plain whose other side was bounded by a towering rampart of rock. East and west as far as the eye could reach this imposing cliff extended. Trees occasionally waved over its top and little cascades spurted out from its surface at intervals. Not a rift, not a crevice could be seen.

Dr. Cummings, the geologist, expressed his amazement at such a formation. "It is either a remarkable fault or an immense sill," said he. "Wait a minute while I photograph it."

Whatever the cliff was geologically it nevertheless presented to us an impassable barrier. Unless we could find a way of scaling it the lands to the south would have to remain unexplored. As we had some three and a half days left of our five, Lord Hanavan suggested that we search along its base for a break. Professor Milroy flipped a coin to decide our route and then we all turned and marched due west.

All during that day the precipice presented no break. Its base was piled high with great chunks of rock broken off from the top while the bleached skeletons of animals attested the presence of life above. Lord Hanavan estimated that nowhere was the cliff lower than 800 feet while in many places the crest was a good 1500 feet above us.

As the fourth day drew to a close we had about decided our quest was hopeless when Professor Pfeiffler, with the glasses, discerned a dark streak running up the façade of the rampart.

We hurried on, half expecting to find only an outcropping of dark rock. But, arriving abreast of it, we found a crevasse scarcely four feet wide extending up and back through the solid rock for an unknown distance. It sloped at an angle

of some sixty degrees and led directly to the summit. Boulders wedged here and there made the task of climbing less forbidding. At last, after days of delay, fortune favored us. That night camp was made at the foot of the crack, up which a draft of cold air continually poured, and at daybreak on the fifth day we began the ascent.

Climbing proved much more arduous that we had thought for the rock, a smooth basalt, made necessary the use of ropes at times. We stopped near noon atop a giant boulder wedged between the walls and ate some lunch. Professor Pfeiffler at that time discovered a small orange-colored snake in a crevasse and almost slid down the shaft in an endeavor to catch it.

At one p. m. we started again and at four, exhausted by the labor, we hauled each other out on the top of the cliff.

From our position, over a thousand feet above the forest, a wonderful view could be had of the trail northward. Through the evening mists one could make out the silvery ribbon of the Sobat River—more than sixty miles away—winding out of sight. We could see no sign of the boatmen's camp because of the haze and dense foliage.

After a few moments' rest at the top of the "chimney" the five of us turned our faces south again and started on upward. In the three and a half hours of day that remained, we ascended more than three thousand feet. At last, near sunset, the slope leveled off and pressing on through the last ranks of trees we came upon the top of the ridge. Then we stopped in sheer amazement at the wonder of what lay spread before us.

Directly beneath our feet the mountain descended, possibly a thousand feet, to a wide plain covered with mist. And on the other side of this—some forty-five miles from where we were—there reared up the most impressive mountain I have ever seen. A wide base of blue forest-covered foothills pyramided themselves upward through banks of clouds made scarlet by the sun until the whole mass culminated in a single summit, shimmering white in the sunset and arising majestically to a perfect cone in the still air.

After our hot struggles during the day and the weeks of viewing only hemmed-in jungle flats the sheer beauty of the peak held us spellbound. Dr. Cummings' camera lay unnoticed in its case and even Professor Pfeiffler was silent. Then, even as we watched, the vast clouds massed themselves together and in a whirl of colored vapors hid the mountain from our sight, leaving only a towering cumulus cloud.

For some minutes we said nothing—then we all distinctly saw a strange thing. At the very foot of the mountain in the midst of the evening mists there suddenly appeared a number of brilliant specks of light, like sunlight reflected from windows. They shone for a moment and then vanished one by one.

Five minutes later the sun's enlarged disk disappeared behind the western hills and the tropic night set in without warning, blotting all from view.

IV

IN SPITE of the fact that we were exceeding our time limit Lord Hanavan determined to push on to the base of the mountain. In the first dim rays of dawn, when the valley was still covered by a thin blanket of fog, we ate our cold breakfast and started down the slope. Within a half hour we found a dry creek bed whose bare rocks presented a much better road than the tangled thickets on either side. Once off the summit the more distant view became invisible—indeed, we caught no glimpse of the great peak until we were well into the valley.

For some hours we proceeded down the little canyon. Then, utterly without warning, we came upon the amazing, the unbelievable. The trees that had hemmed in the gulch suddenly ended and a cleared space perhaps a hundred yards wide cut across the creek. But it was not this break in the trees, not even

the fact that they were cleanly sawed, that we noticed. It was what was evidently a steel railroad trestle spanning the canyon.

I think we all stopped dead for an instant at the sight. Then Lord Hanavan ran forward to the nearer pier. We followed. The column of steel rested upon a massive block of concrete. Beams and braces radiated from it, their joints welded together. The column was triangular and apparently hollow for it resounded when struck.

Lord Hanavan was the first to recover his voice. "A bridge of this sort—*here!* It can mean only one thing—white men, civilization, a railroad!"

Professor Pfeiffler interrupted, pointing upwards: "Look! There is only one rail."

Dr. Cummings pounded on the column. "Look at its construction. Those beams would require a foundry to make and the welds—I never heard of such a thing!"

"Those lights!" cried Professor Milroy suddenly. "Those moving lights—what connection have they? An airship?"

But at this instant our conversation was cut short by a metallic rumble from above. Turning in apprehension we raced for the shelter of the trees and waited. In a moment it came, the car that ran on the strange track—a long low steel structure with a pointed prow and many round windows. Underneath were two metal shoes upon which it slid. A cogwheel between the runners revolved rapidly, carrying the machine forward. I caught a glimpse through the windows of two men in its front and then it was gone.

For fully five minutes we remained under the trees, too stunned to say a word. Finally, "What kind of a country is this?" gasped Professor Milroy, "A train on runners—airships—such a mountain! Are we dreaming?"

Lord Hanavan cut him short. "We are

[*Turn page*]

A DIME BUYS A DOLLAR'S WORTH OF *SHAVING PLEASURE!*

BLUE STAR Blades are Sharper, Longer-Lasting because they are ground and honed in oil.

No other blade gives you so much for so little! Try a Blue Star Blade on hard-to-shave spots. See how smoothly, easily it takes off the toughest whiskers. For better shaving at a real saving, get Blue Star Blades today.

ALSO IN HANDY DISPENSER 10 for 30¢

Blue STAR

SINGLE EDGE RAZOR BLADES

PRECISION ASR PRODUCTS

AMERICAN SAFETY RAZOR CORP., BROOKLYN 1, N.Y.

not dreaming. This unknown mountain is easily explained by its perpetual covering of clouds. The airships are only hypothetical. The train—well, let's push on and see what it means."

After listening for the possible return of the car, we scurried across the clearing like scared rabbits and started down the creek bed.

We had proceeded perhaps three miles when wonder number two presented itself to our eyes. It was in the form of a huge mass of twisted rusty metal, overgrown by creepers and evidently very old. Roughly it resembled the car we had just seen for in some of the side plates there were round windows. But there was no track or bridge near and closer observation showed that it had no sliders underneath or indeed any sign of traction device.

Professor Milroy said he thought it had fallen from the skies as the trees above showed old scars. The top of the car was neatly cut open as with an acetylene torch and evidently much had been taken out from inside. But where it had been carried or how there was not a sign. Up and downstream huge rocks made even foot travel difficult—while the steep brush-tangled canyon walls were quite impassable.

We did not tarry long at this mysterious wreck but hurried down toward the valley, which somehow we all felt held the key to the whole thing. I don't suppose the dry creek bed was more than ten or twelve miles in length at the most but to us it seemed endless. We proceeded with great caution—a needless thing as the dense woods were screen enough but our imaginations were running wide open by this time and every tree was a potential abode for some monster.

About noon the ridges on either side dropped away and the rocky stream lost itself in an open forest of semi-tropical trees. We made our way through this more carefully for perhaps an hour and a half, when the forest abruptly ended. Beyond lay broad cultivated fields, roads, buildings, the monorail track—while southward the towering white buildings of a city shone in the sun. We stopped but somehow we were not very surprised. The steel trestle had prepared us for such a sight.

Lord Hanavan looked long with his binoculars and then passed them to the rest of us. We each had a look. The city, through the lenses, could be seen quite plainly—a dark mass of residences measuring a good fifteen miles wide lay in the foreground while beyond arose a series of flat-roofed structures, some with tall spires, which appeared to be of immense height. A slight haze hung over the buildings and the faint echo of human life reached us.

AFTER some moments we brought our attention to the present again. Lord Hanavan was speaking.

"By Jove!" he exclaimed, "but won't the people back home at the Academy be surprised when they find a place like this in British territory. A forgotten colony of exiled Egyptians, building up a city in the wilderness unknown to anyone! And, I suppose, forgetting that there is an outside world. What a story! Milroy, old boy, you'll have to brush up on your Latin and Greek if we are to talk to them. What a tale we will have to tell when we go back!"

Professor Milroy interrupted him. "*If* we go back! What became of those other expeditions that came down here years ago and never returned? These people may not be so willing to be discovered."

After some consultation we decided to remain within the forest until nightfall and then make a rush for what appeared to be an orchard some ten miles closer to the city. During the rest of the day we cleaned our rifles, Professor Milroy wrote in his diary, and Cummings, with the camera, climbed to the top of a tree and took pictures.

After the seemingly endless afternoon was at last over and the sunset colors were fading from the snowy pinnacle beyond the city we shouldered our

equipment and started across the fields. A half mile out was a flat-roofed house which we avoided.

Whatever crop was grown in the fields had not yet sprouted, so we soon found ourselves absolutely without shelter. The roads, one of which we crossed, were of some kind of bluish concrete with gutters at either side and not the slightest trace of the roadside weeds so common in Europe and America. Everywhere we saw signs of the most intense cultivation. Whatever people lived here were evidently cultured.

About one a.m. we reached the copse which was our destination. The moon was dark and the presence of occasional clouds made the terrain almost invisible. The city shone with a blaze of light which could mean only one thing—electricity. Far to the southwest low-hanging clouds glowed as though another city lay in that direction.

Our excitement, which had been growing all the time, was now near the bursting point. As I pressed close to Dr. Cummings for a moment I felt him shivering and doubtless I was in the same nervous state. Lord Hanavan was more calm. After examining the trees for a moment he said, "We are in some kind of an orchard."

"Grapefruit," furnished Professor Pfeiffler, a leaf in his hand. "A grapefruit grove which is evidently part of a farm. If ve are here ven daylight comes someone will be sure to discofer us. Den—remember the expedition of Nineteen-fourteen. De only vay iss, I tink, to go to de nearest house und either secrede ourselves vere ve can see und overhear de inhabitants or seize a building und make ids beobles prisoners."

Hanavan nodded and added, "Action in any case is imperative."

Professor Milroy stared about through the glasses. "I think we might try *that* building." He pointed.

Picking up our rifles and packs the five of us left the grove and proceeded at a brisk walk toward the city. None spoke. We crossed another smoothly-surfaced road and then the outlines of the house loomed before us. It was low and flat-roofed and with what appeared to be an oval dome of glass in the center. The windows, small and high up on the wall, were all dark.

With infinite caution we approached the wall, stepping over the ornamental shrubbery in the front and treading softly on the cement-like walk which led to the door. The modern appearance of everything struck me oddly. Somehow we seemed more like five burglars on a lawn in the United States than a party of explorers stalking the dwelling of a bloodthirty savage in Africa.

But now Lord Hanavan was at the door—a solid panel of blue color without knob or keyhold. Hanavan's hands slipped over it an instant and discovered a small countersunk ring. He tugged but the door held. Quitting the porch we essayed a window. Climbing upon Hanavan's back Professor Milroy poked and pulled, then signaled to be lowered.

"No good. Absolutely burglar-proof. Let's try the back." We turned past the front door toward the rear of the house when, without warning, the panel swung open and a blaze of light fell upon us.

A tall man, wearing a blue tunic-like garment, stepped off the porch, peering at us. He carried a curious little metal instrument in his right hand. Walking toward him, hand on holster, Milroy spoke in Latin. "We are weary travelers from a far land seeking the hospitality . . ."

The man appeared suddenly galvanized. He raised the metal device toward us and poured out a torrent of words in some strange language. Lord Hanavan approached him but the man moved his hand toward him and spoke one or two words in a threatening tone.

Hanavan stopped. "He has some kind of a weapon. Gun, maybe." He paused. "Cummings, see if you can get behind him and grab his arm."

Professor Milroy now stepped into the circle of radiance beside Lord Hanavan

and began to address the man in the blue robe in Egyptian. At the same time Dr. Cummings faded into the shadows. Pfeiffler and I stood motionless, at a loss as to what to do. Several tense moments passed while Milroy ran on with his conversation. The other appeared nervous and impatient. His attention wandered and twice he started to speak only to be cut short by Milroy.

Then out of the corner of my eye I detected Dr. Cummings gliding among the shrubs behind the man. Step by step he advanced. With a sort of fascination I noted him gather himself and silently rush forward. One hand seized the man's right arm, jerking it downward, while the other closed about his throat stifling any outcry. In a second they were rolling about the lawn, and then Cummings' opponent went limp. The geologist regained his feet.

"Hurt?" demanded Lord Hanavan.

"No, hasn't any strength at all. He just caved in."

SUDDENLY we became conscious of an imminent danger from the light.

Dragging the senseless man after us we entered the house, Hanavan closing the door. There seemed to be no switch to extinguish the floodlights outside.

The interior was dimly lit with a blue-green radiance which seemed to emanate from the upper building. Hanavan and Milroy carrying their burden, we entered a large room—the one under the glass dome. It was plainly furnished, the space under the high windows being filled with built-in benches, desks and shelves. The floor was of a soft yielding substance, like a thick sheet of rubber and of a dark blue color.

But we had no time to examine details. No sooner had we entered than our prisoner recovered consciousness. We expected a struggle but the man in the blue robe made none. Professor Milroy covered him with an automatic as he was suffered to arise. Then Lord Hanavan again addressed him in Latin. The man replied, apparently intelligently.

Afterward Hanavan told us what the conversation was about. He asked the man if he was an Egyptian.

"No—Zongainian."

"How many people live here?"

"Many. You are from Europe?"

"Yes." Hanavan tried to conceal his amazement. "We have come to deliver an important message to your king."

At this the one in the blue robe laughed and then, apparently overcome by a dizziness caused by Hanavan's attack, staggered, barely catching himself upon the wall. He remained there for a moment, leaning upon one of the panels, then walked toward us. Addressing himself to Lord Hanavan, he spoke in a clear loud voice.

"People from Europe, explorers from the outer world who have made me a prisoner, listen to Ver Vilot. It has been many years since any of your race has penetrated through the jungles over the great barrier cliffs to Zongainia. Those who enter Zongainia cannot leave, for if they did the whole outer world would enter our happy land. The curious, the dishonest, the diseased—and soon our cities would be desolate, our culture destroyed, our beautiful country as wretched as Europe itself.

"For twenty long centuries we have lived, isolated and happy, protected by the barriers of nature and our own vigilance. Once we did have commerce with your people. Persians, Egyptians and Phoenicians rubbed shoulders in our cities. But they brought vice and corruption and El Zoia forbade their coming any more. So the highways to the sea were closed. A river was diverted to turn the only route to Zongainia into a swamp and the men of the outer world remembered it only as a legend called, I think, in Europe—Ophir."

He paused and appeared to listen. Then he broke out afresh in loud tones. "Men of the outer world, you have penetrated beyond the forbidden barriers. You have passed the point where you may return. You have made me a prisoner." Again he hesitated. "But soon

it will be different and you will be—"

He stopped and at that instant the door burst open. A dozen men, attired in short robes and carrying the little metal weapons, rushed into the room. We grabbed at our guns but there was no chance. In a moment they had surrounded us and with surprising thoroughness stripped us of guns and knives.

The man who had but a moment before been in our power addressed a few words to the leader of the newcomers, who nodded in answer. We looked to Professor Milroy but he shook his head. Then the one called Ver Vilot walked to the door while our captors indicated that we should do likewise.

Outside were perhaps a score more men, standing in front of a large boat-like metallic structure which had not been there before. Sounds of conversation stopped as we appeared; they crowded forward to view us. Near the door we paused for a moment while "Blue Robe" and the leader of the new party conversed a moment.

When Lord Hanavan called, "Ver Vilot," that person instantly turned toward him. "What are they going to do with us?"

"You are going . . . to Andorks."

"Then . . ."

"You will find out." He turned away.

"One thing more—how did you summon these people."

The other paused, and then stumbling on the unusual use of the ancient Latin tongue said, "The long-distance talk-by-lightning on the wall. I turned it on when I seemed to faint."

The next instant our captors shoved us toward the metal car where a doorway gaped. Ver Vilot disappeared among the other figures and then with a sickening rush the cylinder shot up and the earth dropped away below.

V

THE disappearance of the earth as our captors' strange airship arose into the midnight sky marked a dividing point in our adventures. Heretofore we had made our way forward against natural obstacles, progressing through our own efforts. But now we were in the hands of Fate, as it were, and our actions were almost altogether directed by others. But I digress.

For perhaps fifteen minutes the airship—I continue to call it that although subsequent experiences showed it to be utterly different from what we ordinarily consider such — shot dizzily through the sky at a high velocity.

Our captors, who numbered about twenty, spoke no word to us. They sat in seats around the sides of the cabin and talked among themselves. We stood or rather huddled in one corner, not even daring to look out the portholes. The cabin was quite dark, save for a dim glow over what were evidently navigating instruments.

After a quarter of an hour or thereabouts the ship began to drop earthward like a plummet. There was no gliding about it. Our bodies literally arose from the floor as the car fell from under us. I seized Professor Pfeiffler desperately and then the machine came to a stop.

Tumbling in a heap on the floor we lay for some moments, afraid to move lest we find all our limbs shattered. However, the Zongainians did not seem inconvenienced for they arose and, helping my companions and myself to our feet quite politely, filed out of the now-open door. We followed.

The airship rested upon a series of metal rods and rollers, on what appeared to be a large paved field. A pair of floodlights at some distance threw everything into sharp relief, making long grotesque shadows.

A pulsating rumble like a vast buried machine was faintly audible.

Still surrounded by the Zongainians we were marched across the illuminated area under the lights and along one side of a wall. From the other side of this came an odd confusion of sounds, thumpings, musical gong-like tones and a pro-

longed hissing, not unlike the noise made by certain kinds of automobile tires on a wet pavement.

Suddenly we came to a stairway. Feeling clumsily in the dark we ascended to the top of the wall. Involuntarily I looked over and then recoiled. We were on the roof of a gigantic building, of which the "wall" was but the cornice. Down, down, the eye dropped into a canyon-like street whose bottom was lost in a maze of moving lights and a confusion of strange shapes. On the other side loomed the façade of another building, its thousands of windows glowing with a pearly light.

I looked downward again and then the guard behind gave me a shove and I was forced to stumble down another stairway. My head whirling with the brief glimpse into that glowing immensity, I walked mechanically down a ramp underneath the roof level and shortly after entered a lighted hallway. It was bare of carpet or other ornamentation. The illumination of a soft bluish-white color emanated from behind the mouldings. I heard Lord Hanavan murmur something about "a Geissler tube."

Fifty feet down the hall we were halted. In one wall was a round opening some four feet across and about a yard from the floor. On a rack to one side hung a number of metal objects, somewhat like overgrown plasterers' trowels. Taking one of these the leader of the party fitted its blade into a groove in the bottom of the hole and, leaping lightly astride of it, vanished. Without a word the other did the same.

I stepped nearer, peering. It was like one of those package chutes used in department stores—highly polished, egg-shaped in cross-section and dropping down at an angle of 70 degrees. A narrow groove lay in its bottom. Involuntarily I drew back when one of the Zongainians grabbed my arm and, putting one of the "trowels" in my hand, shoved me towards the orifice.

I struggled to get away from him. "No," I cried, "no, *no! I can't!*"

The man seemed surprised and started to explain. Shoving the blade of the thing into the slot, with the aid of another he forced me to sit on the lip of the chute, feet pointing downward and grasping the handle between my legs. Making a gesture illustrative of hanging on the Zongainian gave a push and off I went.

For ten seconds I experienced as real a terror as I ever hope to feel in this life. Down I shot at an incredible velocity, clinging desperately to the handle of the guide. All was black and the wind whistled past, effectively preventing any outcry. I rocked dizzily back and forth and finally turned completely around and rushed down headfirst.

Then suddenly I shot out of the tube near the ceiling of a vast lighted room. I dropped down a long trough and, as the guider began to slow down because of some automatic braking force, I let go completely and slid across a flat table into the arms of a dozen Zongainians. Not even bothering to pick me up they hauled me from the slide.

They were not a moment too soon for the next instant Professor Pfeiffler came out of the hole in the ceiling, down the chute and squarely into the "reception committee," which he knocked to the floor with the violence of his impact. Twenty feet behind came the handle of his guider.

Pitching my poor friend out of the danger zone they gathered themselves for the next arrival. It was Lord Hanavan, who, with drawn and pallid features, clung manfully to the handle of the guide and consequently decelerated smoothly within fifteen feet of the end of the slide. Cummings and Professor Milroy came next, both sliding freely many feet in advance of the guide.

AS SOON as they were safely picked up by the "reception committee," who suffered many black and blue spots, the remainder of our party descended, gripping the guides easily and stopping

with an enviable grace. It was our first experience with the Zongainian chutes which, so we found, were used universally for descending in the big buildings.

The chamber in which the chute ended was roughly sixty feet square and half as high. Perhaps twenty doors opened onto it from all four sides and through these people were constantly passing. By the side of each door was a shiny black panel, covered with rows of lettering in white—lettering which I quickly recognized to be similar to that on the platinum coins.

The floor was of the same dark-blue yielding substance we had found in the house. Walls and ceilings were of polished metal plates, inlaid with black enamel in a remarkably beautiful geometric design. We had, however, little time to examine the architectural beauties of the place for our captors hurriedly escorted us through one of the doors and down a long passage.

Occasionally we passed people—tall slender men and women, dressed alike in short tunics and wearing flexible sandals. A few turned and stared at us but at a word from one of our party they laughed and went on their way. Professor Milroy listened intently to everything that was said and told us he had caught many words related to Latin, Persian and Egyptian.

"But the grammar," he confided in a whisper, "the grammar is beyond me—absolutely beyond me!"

During this time we were conducted along a series of passages more or less filled with people until finally we arrived at a place suggestive of the booking office of a prison. A man, dressed in a blue tunic with a light orange cape over his shoulders, sat behind a counter made of what appeared to be blue bakelite. Several complicated instruments were arranged before him to which he gave much attention.

Upon our arrival, however, he arose to his feet and addressed the leader of the party in an excited voice. That per-

[*Turn page*]

How to buy better work clothes

GET long wear from the tough materials and rugged sewing that go into Blue Bell work clothes. Blue Bell dungarees are cut full so they don't bind. They're Sanforized, and keep their roomy, comfortable fit as long as you wear them. Reinforced with no-scratch copper rivets. Plenty of pockets.

Blue Bell Sanforized chambray shirts are cut to body contour for comfort, and topped by a dress-type collar for good looks. For outstanding value in all kinds of work clothes, look for the Blue Bell Qualitag, which guarantees you the best made, best fitting work clothes you can buy—*or your money back!*

BLUE BELL, Inc., 93 Worth St., New York 13
WORLD'S LARGEST PRODUCER OF WORK CLOTHES

son responded at some length, making frequent gestures toward us and using the words, "Europe, England, Deutschland." When he was done the other addressed us in Latin.

"I am sorry that you made the mistake of coming here. We of Zongainia wish to remain unknown, so it becomes necessary — unfortunately necessary — to confine by force all who cross our borders. You will not be ill-treated but for the best interests of the country you will not be allowed to return. Have you anything you wish to say?"

The last phrase sounded unpleasantly like the words spoken to a condemned man before sentence is passed. Lord Hanavan now took our case as spokesman.

"Yes, I have a great deal to say. We are a scientific expedition, exploring for the interests of civilization. We cannot understand your desire for seclusion— your country would benefit immensely by commerce with the civilized countries of the world. You must still imagine that Roman legions hold mankind in subjection. The world has changed a great deal since that day. People outside of Zongainia fly through the air, they have conquered the oceans, the poles—"

The man in the cape interrupted him. "A list of the virtues of your race is unnecessary. If you wish to say anything relative to your confinement here . . ?"

"Well," replied Lord Hanavan with dignity, "all I can do is to protest against the uncivilized manner in which we have been seized and imprisoned for no offense save that of unwittingly entering your country."

"I wonder," said the other musingly, "what punishment your country metes out to housebreakers? If you feel disposed to argue the case you will have ample opportunity to do so when El Zoia sees you, as he doubtless will. As for now . . ."

He relapsed into his native tongue, evidently giving some sort of instructions. A few moments later we were escorted out by another door, up a ramp and into a small room, where we were bidden good-night.

THE instant the door had closed we all began to search for some way out but the place was proof against us. Save for the door the walls were unbroken by any aperture. Their surfaces, of a bronze sheet-metal, sounded solid when pounded. A number of built-in benches, upholstered with a thick rubbery mat of dark blue, constituted the furniture. Illumination came from a single long glowing glass tube in a groove above the moulding.

After much wall-tapping Professor Pfeiffier located a stream of warm air entering from a number of small openings hidden in a design near the floor. At least we would not suffocate. But there our search ended. Sitting in a dejected group on the benches in the corner we eyed one another.

"Well, here is the end of this expedition," remarked Professor Milroy finally. "Tomorrow our bearers may start back with the same old story—'walked off into the jungle and never came back.' Just like the expedition of Nineteen fourteen. I wonder where *they* are?"

"Either here—or dead," replied Hanavan. "I suppose they will send out a search party."

"Maybe. But if they do find the crevasse up the cliff they will be captured as soon as they arrive. It's against human nature to turn back after only a sight of a land like this."

"But," interposed Lord Hanavan in a more cheerful tone, "don't you think it is worth the inconvenience to find a country like this Zongainia? It's the archaeological find of the age! Even if we never escape we will finish our lives in such a place as man never dreamed existed. Did you see that street and the airship? I believe they are ahead of us in some respects."

"I neffer saw buildings like dot outside of Noo York," added Pfeiffler, "und dot slide!" He shuddered. "I wonder

how long dis coundry hass been here?"

"Since Roman times at least—two thousand years—maybe three—can't tell," murmured Hanavan. "I say"—he yawned—"did you notice if that airship had wings? Folded up, perhaps . . ."

There was a pause. I felt very drowsy. Somehow our conversation seemed to run out although there was plenty to talk about. I observed with a sort of mild surprise that Professor Pfeiffler was slumped backward, snoring.

"Who is this 'El Zoia' they were talking about? A king or something?" I yawned. "Feel sleepy . . ."

"I wonder what the population is?" began Dr. Cummings and then I slipped backward onto the couch. For an instant my eyes remained open. I glimpsed Hanavan rubbing his eyes hard and Milroy leaning heavily on Professor Pfeiffler and then the world went black. I sank into a deep and dreamless slumber.

Consciousness returned to me through the violent shaking of my person by Dr. Cummings. "Wake up!" he cried. "It's morning."

"Is it?" I replied sleepily, looking about. The room was exactly as it had been before, the soft glow of the Geissler tubes filling it.

"It's eight-thirty, if our watches are correct," added Lord Hanavan. "We must have been drugged last night through the ventilator."

Milroy commenced to speak when, without warning, the door opened and three men entered. Two carried covered dishes. "Be ready to leave within one-fourth of an hour," said one of them. Leaving the dishes they departed.

"Breakfast," announced Cummings, looking into a covered platter.

The meal consisted of a sort of jelly that tasted somewhat like bouillon and a cold liquid with an invigorating effect whose flavor resembled that of sauerkraut juice. However odd the food was we fell to and, by the time the quarter-hour was up, were ready for whatever was to come.

At precisely the fifteenth minute the door opened and we were bidden to march. We were escorted through the office where we had been the night before, into an elevator which ascended a great distance and finally out onto the roof again.

By day the city was an imposing sight. Great flat-roofed buildings, covering many acres each and rising sixty stories from the ground, stretched miles in every direction. Tall trees grew on the roofs and we could see people walking about on shaded lawns.

On top of our building there were no roof gardens. The space was taken by a number of great steel cradles like the ways of a shipyard. In one of these rested the airship of last night. By daylight we could examine it more closely.

Imagine a submarine without the conning tower some eighty feet long! Imagine it lined with portholes and with big square windows in front—of a light grayish color and with stout runners underneath—and you have a picture of a Zongainian airship or prolo as they are called there. Of wings or propellers we saw not a sign—their method of propulsion is based upon an entirely different principle, that of the little known action of high-frequency current upon certain kinds of crystals.

Later we were to learn much more about these wonderful prolos but just then time pressed—at least it pressed our conductors for they hustled us into the open door of the craft at once, followed us in and made it fast. One took his place in a seat at the front windows, made a number of adjustments with dials and levers—and the next instant we silently left the steel ways and sailed into the morning air.

If the city had been impressive from the ground it was marvelous from above. Through the crystal-clear atmosphere we could see its streets extending mile after mile, up to the very foot of the mountain now hidden in mist. To the north the range we had crossed yesterday blocked the view but southwest an-

other wonder was unfolding itself.

As we rose I glimpsed, over a buttress of the mountain, a wide expanse of blue water, a lake, and on its west edge, directly opposite the peak, another city.

But such a city! Seen through the haze of some seventy miles we did not at first grasp its full immensity. We could not realize that that dark mass of buildings extended thirty miles along the lake and the buildings in the center —how could we know that their spires soared a half mile into the sky!

VI

NUDGING one of the crew I pointed in mute question at the vast scene now lying eight thousand feet below. His eyes lighted with something like pride and he replied, "Imperium."

For some twenty minutes the flying machine steadily approached the city. It did not descend at all until almost directly above the first ranks of tall buildings. Then, with a hair-raising swoop, the car shot vertically downward. Our destination seemed to be an immense tower, rising far above the other roofs into the air.

For miles in every direction the ground was covered with giant buildings, separated by long glass roofs like a greenhouse. Under these, as we learned later, lay the streets. Beyond the "business section" straight avenues radiated in all directions, lined with smaller houses whose individual construction could not be discerned. In the aggregate they suggested a green plain strewn with colored pebbles.

But now our descent brought the tower and its surroundings to the center of attention. It was situated on a wide half-circle of park, possibly a half-mile across and about two miles from the lake. The tower was of an almost pure-white stone, artificial we found, whose top ended in a series of green rounded domes and roofs.

To the very tip of this structure went the prolo. What appeared to be the end of a spire turned out to be a roof space, roughly a hundred feet square and partly occupied by another of the landing ways. The airship landed without a bump and the next instant we were all piling out.

A dozen or so people hurried out from the enclosed upper end of a ramp to greet us or rather to greet our captors. Much conversation ensued, plainly about us, for many looks and gestures were made in our direction. Professor Milroy listened intently and in the pause before we were taken down into the building gave us a report on what he understood.

"I could almost believe," said he, "that they speak two languages. Part of the time I can follow quite well and then they break into a patois which has not a familiar word. But here is what they just said—our escort wants to know, 'Is El Zoia here?' Answer, 'Yes.' 'He has been told?'—about us, I suppose. 'Yes.' And he will do something to us this afternoon—used a verb I couldn't get.

"All the rest was a curious mixture of Latin and other tongues. Then our escort wanted to know where we were to be kept. 'Here until they have seen El Zoia—then take them to the *Kont-se-el-heligz'*—whatever that may be—'until further orders.' So, unless the Kont-se-el heligz is the morgue, we seem to have no cause for worry."

At this juncture further conversation was stopped by the Zongainians, who, by various gestures and words in their tongue, indicated that we were to go below.

The interior of the immense tower was quite similar to the other building we had been through. I looked forward with a quaking sensation to another chute and resolved to die rather than descend the immense distance to the earth. However, though we passed a number of these ominous round apertures in the walls, nothing more dangerous occurred than the descent of about four floors by gently sloping ramps.

At the bottom of the last incline we

were led under a wide arch and through a sort of reception hall to another high-ceilinged room. Here a man behind a dark-blue counter was addressed, whereupon he turned to an instrument and spoke at some length. Professor Milroy listened but appeared, by his general expression, to comprehend little.

Our guide listened respectfully and then ordered us to the side wall, where a low bench lay beneath the windows. Seating ourselves we waited. Milroy, without being asked, translated for us.

"He—the one who brought us—wants to know if somebody called 'Ver Menisto' is occupied. The gentleman at the desk, who, I gather, is a kind of secretary, telephones in that other dialect and then tells our friend to wait some length of time. He said 'a deck'—whatever that may be."

Lord Hanavan occupied himself in staring out of the window. We had a marvelous view eastward over the lake. Some forty-five miles away the mountains uprose on its farther shore. Through rifts in the clouds I could make out buildings of no mean size upon their flanks. The near view was obstructed by the wide sill of the window. Down by the lake shore the ranks of sky-scrapers made a solid cliff overlooking a long park.

Dr. Cummings, glancing nervously about, unslung his camera, which he had been allowed to keep after the search for weapons. "I wonder," he murmured, "if they would object." He started to sight through the finder when we were startled by a deep melodious voice speaking English!

"Don't waste films on that—I will give you a photograph."

TURNING toward the voice we beheld, standing in the now open door to the inner room, a tall dark-haired man in a brilliant blue cape. Amazed as we were by his command of English, I could not fail to note a peculiar distinction, a sort of nobility of appearance that set him apart at once from every other person we had seen thus far.

His smooth-shaven face had the stamp of character upon it that cannot be described in terms of features. His eyes, of a steely gray, bore the command of an imperator and the understanding of a philosopher. Instinctively I knew that he was the ruler of the country, the El Zoia we had heard mentioned so often.

Lord Hanavan and the others must have realized this also, for we all rose to our feet with one accord. For an instant we stood thus. Then our conductor, much embarrassed, addressed himself to the man at the door. El Zoia listened and then dismissed him. Addressing himself to us he said, "Come into the other room."

We did so. The door closed of its own accord behind Professor Pfeiffler, who was last. The other seated himself behind one of the desks and indicated that we do likewise. Then he said, "May I ask your names, gentlemen?"

He listened quietly to the introductions, saying after they were done, "I have your paper on the Cretan inscriptions, Lord Hanavan. You are to be congratulated upon its accuracy." Then, "Well, gentlemen, you are, I suppose, searching for a trace of the Lloyd-Turnbull Expedition of Nineteen fourteen?"

His manner was so casual, so utterly unbecoming to our position and the adventures we had been through, that it was difficult to think we were not back in some club room in London.

Lord Hanavan, as the spokesman of our party, entered into a detailed account of his discoveries at Philae, the manuscript we had found in Cairo and the journey up the river. He left out, of course, any mention of the returning bearers.

The man in the blue cape—somehow the title "king" seemed too plebeian for him—listened with great interest until our friend was through. Then he spoke. "Isn't it too bad that people have such curiosity? If you had written another paper on those coins and that sherd instead of coming up the river you might

now be back receiving honors at the Royal Society. But, well, you English live on adventure, so perhaps it is well." He paused, leaning back in his chair.

"I suppose you have had something told you about this country—Zongainia. And of course you have drawn plenty of conclusions. I won't enter into our history or anything else concerning the land now save to say that Zongainia has existed here more or less as you see it now for almost two thousand years.

"Since that Roman expedition you read about not a rumor of our country has reached the rest of the world. Natural barriers, augmented by our own construction, have for eighteen centuries prevented traders and explorers from carrying tales. We keep track of things outside.

"Of course"—he paused—"one of the most fashionable men-about-London is our Ambassador to England. He sends newspapers weekly—all the most interesting books, magazines and music—everything to keep me up with the world. I"—he smiled—"have been in London several times."

Lord Hanavan put in a question. "We have been told," said he, "that we are not to be allowed to return. Is this true?"

El Zoia shook his head sympathetically. "Unfortunately it is. Once you enter Zongainia the policy of our country demands that you never leave. The expedition of Nineteen fourteen and its relief party are both living and well but they may never go back. We have one old man, a French explorer, who entered Zongainia from the west forty years ago. I talked with him in this room. Another, a Spaniard, who died a decade ago, came up from Lake Rudolph through the swamps in Eighteen sixty-eight. A well-educated young man, he taught me Spanish."

The ruler appeared so genuinely sorry that Lord Hanavan seemed to see some ray of hope. Arising to his feet he cried, "But why do you want to keep this seclusion? Why must this country remain hidden—these cities inactive? When you could, by a word, have the commerce of all the planet pouring in? You could become a world power! You could share your scientific achievements with the other nations instead of selfishly concealing them. Why do your people hide in this little valley when the whole wide earth would welcome them?"

The man in the blue cape sighed. He appeared bored, as though reciting an oft-repeated formula. "Zongainia could not exist that way. If we made ourselves known Imperium would soon swarm with tourists, with criminals, with sick people. We would become involved in diplomatic squabbles, wars—you forget, Lord Hanavan, that Zongainia lies mostly on 'British' soil. Our money standard is platinum. The cheapness of gold here would precipitate a financial disaster.

"Our people are not the same as yours. Our food is utterly different. A banquet such as you would sit down to with enjoyment would kill me. Your vice and corruption would seem to us like the filth and squalor of a Bush family. We have abolished pests, stamped out disease. If your world were turned loose in Zongainia plagues would sweep the land, the city of Imperium would become but a place of mourning."

Pausing for an instant he stepped to the window and threw it open. "You speak of commerce, Lord Hanavan, you speak of the wide horizons of world trade. You deplore our isolation—*look!*"

Crowding forward we peered skyward to where he pointed. For a moment I was blinded. Then I made out, high in the blue, the shape of a flying machine. At first it seemed tiny but as it dropped I saw rows upon rows of windows, windows whose smallness brought out the craft's huge proportions. Lower it swept, now it paused above the roof tops.

Hanavan gave a gasp of awe. "It's—it's a half-mile long!" Gently the immense bulk of the vessel vanished behind the buildings.

When it was gone, El Zoia turned to us and said, "That is the *Alf-Nueri*—it is bringing twenty thousand passengers

from the star you call Alpha Centauri. You see, we are not entirely confined."

VII

EVENTS have a habit of coming so thick and fast that one cannot react fully to them until hours later. After our interview with the ruler—his title, so we learned, was "Presonio," meaning first judge—the five of us were conducted to the *Kont-se-el-Heligz.* It was located, so I believe, in a building removed a mile or so from the great tower. We were conducted thither by an underground pneumatic tube at a great velocity.

I recall an ascent of some length in an elevator and a walk down a long hall, terminating in another living chamber. Our guide said something in Zongainian, closed the door and we were once again alone. Then our pent-up feelings burst out like a flood.

For fifteen minutes we fired wild unanswerable questions at each other. We were completely carried away upon a spate of new ideas and new conceptions. We had come prepared to find a semi-civilized race of exiles living in ignorant isolation. We had found . . .

"It seems," cried Lord Hanavan, "that *we* are the isolated ones! Man, they've solved the problem of interstellar travel—Alpha Centauri! Why they must be having commerce with the whole universe! They are a part of a cosmic league while we are still limited to our own little Earthly horizons! To think of finding this in the twentieth century!"

"How long have they been doing it?" interrupted Milroy. "The Romans said nothing about flying ships or moving stars . . ."

"And the size of this city—Imperium, do they call it? There must be millions living here—scores of millions!" added Cummings.

"Exterminated insects — disease — *Mein Gott!* Dey must be subermens," put in Professor Pfeiffler.

Now our conversation swung to the subject of the man we had recently talked with. Somehow he seemed to be the center of everything here. The network of streets radiating from his tower, the easily comprehended title of El Zoia, apparently unofficial for he was not addressed thus—all pointed to him as the commanding genius at the controls. His personality would have impressed us anywhere, but here it was actually awe-inspiring. Professor Milroy, who had conversed with our guide on the way, explained that his real name was Ver Zanaos Menisto.

"The 'Ver' part," he added, "seems a sort of title like Esquire or Mister—I was trying to associate it with some Egyptian name roots but I can't place it at all. I don't believe he is of Egyptian descent even. His frame appears decidedly Nordic and his gray eyes aren't Roman or Egyptian . . ."

He trailed off as was his habit when

[*Turn page*]

AMAZING THING! By Cooper
SENSATIONAL NEW TING CREAM FOR FOOT ITCH (ATHLETE'S FOOT)
- REGULAR USE HELPS RELIEVE ITCHING - SOOTHES BURNING BETWEEN CRACKED PEELING TOES - AIDS HEALING AMAZINGLY!
FIRST USED IN HOSPITALS NOW RELEASED TO DRUGGISTS GUARANTEED
TING MUST SATISFY YOU IN A WEEK - OR MONEY BACK!
IN LAB TESTS TING CREAM PROVED EFFECTIVE IN KILLING SPECIFIC TYPES OF ATHLETE'S FOOT FUNGI ON 60 SECOND CONTACT!
EVEN IF OTHER PRODUCTS HAVE FAILED TRY AMAZING TING CREAM TODAY! GREASELESS, STAINLESS
ALL DRUGGISTS ONLY 60¢ A TUBE
Ting

against a blank wall. Conversation dragged, repeated itself. Oddly enough no one thought of escaping. I believe that if the walls had been cleft for us to walk out free we would have remained. Our "curiosity" was too strong.

We passed the night and a good part of the next day in the little room. Two meals were brought—of gelatine, a sort of salad made of fruit chopped fine and the bitter yellow drink. Then, along toward night, according to our watches, the door opened to admit two men bearing between them a complicated-looking machine and followed by a woman. Then the first two left and the woman addressed us in English.

"I have been sent from the Bureau of Instruction to give you a general plan of our country, its history and that of the universe which surrounds us."

Turning back to the apparatus she started a small motor, put out the lights of the room and the next instant upon a panel in front of the device a picture, colorful, moving and stereoscopic, appeared. The lady proceeded to explain in a matter-of-fact voice as the pictures changed while we five representatives of the outer world sat hunched in the dark and listened like little children.

It is impossible to go into that history in detail for much of it has slipped my mind and it has small bearing upon our subsequent adventures. Little talk was necessary from our instructor. The moving pictures, some of them twelve thousand years old, told the story better than any words.

Many years ago—thousands of years—the Moon, satellite of Earth, had had an atmosphere, seas and rivers, life, people. Its chemical composition, explained the lady, being identical with that of the Earth, produced the same forms of life while their environment influenced by the same Sun and atmosphere, directed the long processes of evolution even as they were being directed a quarter-million miles away upon the Earth. A great race of men grew up on the Moon, who called themselves Metyrs.

Their cities of massive stone housed untold millions of people. For centuries they lived in peace and security, enjoying the fruits of a hundred-thousand-year-old culture. But then came disaster. It struck first fifteen thousand years ago in the form of a great swarm of meteors, which pierced the Moon's thin atmosphere easily. One entire hemisphere of Metyr was laid waste and nine tenths of her people killed.

As time passed the survivors gradually built up another civilization—this time on the other side of the planet. But in the year 65 B.C. the Moon was shaken by frightful earthquakes. Immense underground caverns, containing a partial vacuum, were opened and into these the atmosphere commenced to pour. The doomed Metyrs made desperate attempts to save themselves and in a year managed to send a hundred and twenty thousand people to Earth in a huge winged rocket-ship which glided to a safe landing when it touched Earth's atmosphere.

TWELVE ships left the Moon and then fresh earthquakes took the last vestige of air, leaving the planet what it is now, frigid by night and torrid by day.

On Earth the refugees gathered at a lake in Central Africa, where the altitude thinned the air enough to be bearable to their lungs. There they built up again the culture of their fathers and kept alive the ancient ideals of the Metyrs.

At first the other peoples of the world were courted but their crudity and barbarism soon turned the cultured Metyrs against them. In the year 50 A.D. a battle was fought in which the Metyrs drove back the legions of Rome and destroyed the highway to the sea. A river was diverted that its waters might turn the route into an impassable swamp. In the year 91 A.D. a last attempt was made by the Romans to conquer Zongainia but the use of explosives drove the enemy back.

The Metyrs now set about the immense task of civilizing the six million Egyptians, Romans and Phoenicians in their midst. It was a task of generations but the superior culture of the Metyrs ultimately won. The centuries passed. Gradually Zongainia grew and gradually the need for commerce with other nations increased. It was then, in the year 1200 A.D., that the first electric flying machines were made and by their magical agency a market vaster than a thousand worlds was opened up—the Universe.

"And since," concluded our teacher, "you see the results."

We were given opportunity to ask questions after this and through them we learned a number of other rather astounding facts, facts which our lady had taken so much for granted as to forget. Professor Milroy's suspicion of a second tongue was confirmed.

"You see," she said, "the Metyrs had a tongue of their own but it was much too complicated for the savage people of Earth and as a result a simple second language was developed, partly from the Metyr but mostly from Latin and Egyptian. It is this language which has puzzled you so much by its use of familiar words."

In answering a question of Dr. Cummings she casually mentioned that in the year 1230 (our calendar) El Zoia landed the first space-ship upon the planet Venus.

"What's that?" cried Lord Hanavan. "What do you mean?"

"Why, El Zoia—Ver Zanaos Menisto, of course. You saw him yesterday."

"But twelve hundred and thirty—that's over seven hundred years ago! How could . . ."

Suddenly a light seemed to dawn upon her. She laughed and then explained. "El Zoia is not a Voyian—an Earthman. He is a pure-blood Metyr. The life span of a Metyr is much greater than that of one of you. They sometimes live as long as twenty-five hundred years—I am four hundred and sixty years old now. We think it was caused by the lesser gravity of the Moon or the admittance of some ray that Voya's—pardon me, Earth's—atmosphere is too thick to pass. There are many people alive now who were born long before your Christian era began. It is that longevity that has enabled them to assimilate the vast horde of barbarians that was thrown upon them."

"How old," said Lord Hanavan, "*is* El Zoia?"

"He was two thousand and thirty-three years old on"—she paused as though making some mental computation—"the first of July. He was born, you see," she added, "in one hundred and two B.C."

After answering a few more questions the young lady who was four hundred and sixty years old packed up her machine and withdrew, leaving us to cogitate on all that we had seen and heard.

With the coming of the next day we were all escorted from our rooms into the presence of a businesslike person who spoke English with a peculiar accent—more like an Irish brogue than anything else—and who handled us as impersonally as though we were pieces of freight.

"You are," he informed us, "to be sent to Dunsaan immediately. You will find comforts and fellow-countrymen there. You will leave this evening. In the meantime you may go to the roof gardens if you wish."

Guards stepped up and before we could put in a word we were in an elevator bound upward. It was a relief to know that we were to see the sunshine again.

The afternoon was spent in a tropical garden with the great city spread about on three sides and the magnificent panorama of lake and mountain on the other. A mile to the north the white shaft of tower shot skyward. We attempted to count its floors but, as we all got different results, gave it up.

Then we fell to discussing our case and wondering where we were going.

For lack of a better explanation we concluded that Dunsaan must be another city or a prison. We leaned toward the former supposition, mainly because of a repugnance toward finishing our days in the latter. We wondered if they had prisons in Zongainia—it seemed so Utopian, so like dreams of the future of our own civilization. Lord Hanavan became reminiscent and compared the splendor of Imperium to London. He seemed much impressed by the absence of smoke or dust.

UPON a suggestion from Cummings we climbed over the edge of the garden to where the glass roof of the street curved fifty feet upwards. There we spent a fascinated hour, watching the traffic a thousand feet below. With Hanavan's glasses we could make out multitudes of enclosed three-wheeled vehicles, their drivers sitting where the engine is found in autos, whirring along like big distorted insects. Professor Pfeiffler conducted a careful examination of the cultivated palms and grasses of the garden, furtively pocketing numerous specimens when he thought we were unobserved.

Early in the afternoon we were brought food and drink by an attendant who refused to say a word. We ate in silence. Lord Hanavan and Milroy went off together later to seek a way out but were soon sent back. Cummings took pictures.

And then, before we knew it, it was sunset. The vapors about the snowy peak parted for a brief fifteen minutes while the perpetual heaps of cumulus turned blood-red. It was so like the first sunset we had seen on the mountain—and then with tropical suddenness, it was night. From the glass cover of the avenue streamed a white luminescence, throwing odd black shadows athwart the garden. Lights glowed here and there upon the mountain's flank while the white tower, like a condensed constellation, reared into the evening mists.

We were given a short time to view Imperium by night, however. Attendants came immediately and we were gently but firmly impelled below. Our guides then tried to make us enter another chute but the frenzied protests of Professor Pfeiffler, whom they had singled out to go first, deterred them. We descended by an elevator to the pneumatic tube. The guide said nothing even when Professor Milroy tried out his version of their tongue. He gave up his efforts when the car stopped and we were conducted to another elevator.

Up again and out onto a long blue-floored corridor—I had lost all sense of direction by then. The hall along which we walked ended in a wide balcony, which from our brightly-lighted position seemed to look out over a black infinity. As we neared it metallic sounds of clanking and thumping became audible. The next instant we were upon the balcony, peering off into space.

As our eyes became accustomed to the obscurity we realized we were overlooking an enormous amphitheater, miles long and wide. The floor lay some three hundred feet below, lighted at intervals by floodlamps which served only to accentuate the weirdness of the place. On the floor were immense steel frames upon several of which the black forms of resting airships lay. Across I caught a vague glimpse of derricks working over something. Overhead the stars twinkled brightly and occasional passing clouds glowed with reflected light from the city.

We were prodded into activity and hurried along the gallery. "Dockyards for their spaceships," murmured Lord Hanavan. "What a place!" From behind I heard a muttered exclamation in German.

A few minutes' walk brought us alongside one of the quiescent monsters. A sort of gangway led to a door in its side and up this we were escorted. Here it was that the first inkling of the truth flashed upon us. As we stepped into the ship Lord Hanavan seized the Zongainian by the shoulder and said, "Where

are you taking us? Where does this ship go?"

"Dunsaan," replied the other, wincing.

"Where is Dunsaan?" cried Hanavan. "Is it—"

"Dunsaan is—planet of—you call Alpha Centauri. All Voyians sent there —please, release my shoulder."

Hanavan's hand dropped. "We would like to see El Zoia—Ver Menisto." He spoke evenly as though trying to control himself.

"Very sorry but El Zoia cannot see you. He is gone to Palata—out of the city. Besides these are his orders."

The man started to descend the gangway. Lord Hanavan paused a moment and then hissed under his breath, "If we don't make a break now we can never —knock that one over, Milroy—*now!*" With this he seized the nearest man by the neck and sent him spinning down the gangplank. Then, with us close at his heels, he started racing toward the balcony.

For an instant it seemed that our mad attempt might be successful, for the gallery appeared empty. But before Hanavan was halfway down a score of men, armed with their little guns, raced out and, pointing these toward us, ordered us to halt. Hanavan's rage departed as suddenly as it had come. Stopping he pivoted and marched stiffly back to the door.

We followed him in silence. We were defeated.

Once aboard the craft things proceeded exactly as though nothing unwonted had occurred. We were escorted to a small windowless room and locked in. After a time we heard the faint sound of machinery and, a few moments later, a series of gentle jerks. After that the ship might have been resting on solid granite for all the motion it gave —but we knew it was not.

We were flying—perhaps we were already beyond Earth's atmosphere—toward unknown Dunsaan, beyond the Solar System.

VIII

For more than two hours we remained in our little cell without receiving a word from outside. We listened, hearing nothing, but gradually an odd feeling became apparent. We seemed to be gaining weight. Lord Hanavan reasoned that this might be caused by extreme acceleration in an upward direction—that is to say toward the roof of the car. We soon found that even sitting up was rather tiring—so we stretched full length upon the couches. At eleven p. m. by Milroy's watch the door to the room suddenly opened and an officer stepped in.

"You may come to the control room," said he in fair English. "Follow me."

Five minutes after, we ascended a short ramp into the "pilot house" of the great spaceship.

The room was of oval shape with walls and roof of metal-ribbed glass panes. It measured some thirty by twenty feet. Upon the walls and the tables on the floor were dials, levers, instruments. Outside—

It is beyond the power of man to describe the spectacle that lay beyond the windows. Above, to all sides, below—a sky of velvety blackness, blazing with stars of every hue of the rainbow—millions of fiery points of light, hanging magically in a tenuous webwork of nebulae invisible from earth. We could fairly feel the immensity we were looking into. I was overcome by dizziness at the thought of the distances below. We appeared to be suspended motionless in the center of infinity. I became conscious that Hanavan was pointing to one side and speaking.

"Look! There—it's Mars!"

It was. Like a small full moon of a bright orange color, faintly mottled with dark lines, the planet hung. Even while we watched, it dropped appreciably downward as the space flyer shot away from the Sun.

Our conductor was at our elbow. "Soon," he said, "it will commence to

show phases like the Moon. We are still between it and the Sun. Look," he pointed, "down there is Voya."

We peered, expecting to see the hypothetical blue-green disc, but only a thin crescent greeted the eye. We were already far beyond the Earth's orbit. The Moon, somewhere on the other side of our planet, was quite invisible.

Our guide then proceeded to explain something about the navigation of the ship itself. I fear none of us comprehended much at the time. Later we were to become familiar with these wonderful craft but in a different way.

It seems that the navigation of Zongainian prolos across the voids of the Universe is a most complex process. A line is drawn between two stars, its exact length computed with extreme accuracy and the ship directed with a continuous acceleration for just half the distance. The craft is then turned around and after a short "glide" at peak velocity it begins to slow down, reaching a speed of zero relative to the destination within a few thousand miles of it.

The amount of acceleration is determined by the distance and is limited by the extra strain it puts upon the human system. If a prolo, we were informed, turned off its power while out in space, everything inside it would be weightless. This produced excessive nausea and might result in the death of passengers so the plan was adopted of letting the acceleration maintain a continual inertia force and consequently an artificial weight. On long trips this acceleration was much increased to save time.

The officer said that we would cover the distance to Dunsaan in about eight weeks. "This is a very fast ship," he explained. "It is not a passenger craft but what you would call a battleship—we have international difficulties here too." He added, in answer to our questioning looks, "The prolo is carrying supplies to the Zongainian dockyards on Dunsaan. You are the only passengers."

"What is our velocity now?" asked Professor Milroy.

"We have gone, roughly, fifty million miles from Voya," he explained. "This has taken three hours at a mean velocity of about four thousand four hundred miles per second. Since our acceleration is constant the velocity relative to Earth is now eight thousand eight hundred miles per second. We are going very slowly now. As soon as Jupiter and the asteroids are passed the acceleration rate will be greatly increased. In five or six days the ship will be traveling several times faster than light."

DR. CUMMINGS looked surprised and asked, "Our physicists have always held that it is impossible to travel faster than light—doesn't one experience some peculiar phenomena at one hundred eighty-six thousand miles per second?"

"Possibly your physicists never experimented to prove their theories," replied the officer. "But we do see a number of interesting things. What your scientists called the Döppler effect causes all the stars ahead to become purple and ultimately vanish while those behind redden into invisibility also.

"As the prolo's velocity from the oncoming light separates the waves when the prolo reaches the speed of light it will be impossible to see anything save in a thin plane at right angles to the direction of flight. The light from in front has been changed to extreme ultraviolet as we plunge into it and the light from behind, traveling at the same speed, goes along with the ship.

"Then, as the ship approaches twice the speed of light, it begins to catch up on the light from behind and when we cut into it at the right velocity we see ahead of us what really lies behind. It is very like one of your ocean ships cutting into water waves from the windward when it is traveling at full speed. As the velocity increases, however, all light vanishes save for a ring-shaped rainbow around the ship, which becomes thinner as we race faster."

WE LISTENED to this explanation, comprehending very little. I am not a scientist and so the best I can do is to leave it to some more highly-trained mind to discover the reasons. Suffice it to say, however, in the ensuing weeks the very phenomena described by the officer occurred exactly as he had predicted.

The rest of the journey through the Solar System was accomplished in some twenty hours. The great outer planets passed us one by one—but in general, after our first surprise, we were rather disappointed. Jupiter was only a tiny colored disk but Saturn proved more interesting. For hours it loomed in the sky, softly pastel-shaded, surrounded by its delicately spun tracery of rings which extended much farther out than is apparent seen through the Earth's atmosphere. Then it dropped downward, changed to a crescent and disappeared.

Now the prolo's velocity began to increase in earnest. Everyone reclined on padded couches, including the man doing the navigating. A bell rang stridently and then a giant hand seemed to press down upon us, crushing our bodies suffocatingly into the cushions. I lifted my arm—it fell back as though made of lead. From his position on a near divan the officer spoke without raising his head.

"You weigh about eight times normal. As soon as it becomes uncomfortable we will slack up a little. Ships don't usually do this but we are hurried."

We lay still for some twenty minutes when the deadening weight of inertia was lifted—weighing but twice normal we were able to walk about. At four a. m. by our watches the prolo passed the orbit of Neptune. The Solar System now lay behind. Propelled by its mighty engines the space-ship shot onward at an ever-increasing velocity.

The Döppler effect was now quite noticeable—the stars and nebulae above glowed violet while the Sun, which we were so fast leaving behind, was only a small ruddy disk against a background of dim orange stars.

At five a. m. the signal bell announced the hour of sleep. Much fatigued by our increased weight we were led back to the room. The officer gave us all sleeping potions, explaining that, as the prolo increased its acceleration greatly when everybody was reclining, we must have an artificial agent to sleep with the increased weight.

"We keep no watches," he explained. "At the rest time everyone sleeps. Navigation is wholly automatic."

So we drank our potions and, spreading out on the couches as directed by the officer, sank into a deep and dreamless slumber, while the space-ship raced across the universe at a hundred thousand miles a second.

Morning, which in the little world of space-flyer came at three p.m., found us far beyond the orbit of Neptune. From the control room, where we repaired after breakfast, the sky appeared dead black. The velocity reading, when translated into English units, indicated a speed of two hundred seventy thousand miles per second. Our guide, the officer, explained that in an hour or so we would be moving at twice the speed of light and that as we cut into the light from the sun we would behold ahead what the ship was leaving behind.

At lunchtime the navigating crew, numbering some fifteen men and women —the captain of the craft was a woman —computed the path of the flyer and corrected some slight error in direction. The change was exceedingly minute, less than a thousandth of a second of arc, but the lateral jerk caused by our immense forward velocity threw everyone sideways.

Shortly after eight p.m., a little less than twenty-four hours after our start, the sky above glowed with the stars we were leaving behind. At first red, they slowly changed through the colors of the spectrum and, at one a.m. the next "morning," they vanished. For the rest of the trip—so we understood—the heavens would be a solid, intense black,

unrelieved by a single star.

At five a.m. we were again put to sleep and the prolo increased its acceleration for another ten hours.

Slowly day followed day and week succeeded week. Our velocity gradually mounted into figures beyond all human conception. Each "forenoon," by some method we could not comprehend, the direction of the prolo was checked. Then we would eat the weak-flavored jelly and the bitter drink. Our officer friend —his name was Ver Vlygar Moti—would patiently teach us Zongainian.

The simpler common language, made up of Latin and Egyptian words was easy to understand—but the classic tongue of the ancient Metyrs presented great difficulties. In the first place a good speaking vocabulary required some six hundred thousand words at the least, while educated people had at their command as many as a million and a half.

For once in his life Professor Milroy was up against something. But the scholar, evidently realizing that the honor of the party was at stake, stuck manfully to the job and before the end of the trip had mastered the grammar and a good hundred and fifty thousand words.

As for the rest of us we did the best we could with the conversational tongue, acquiring by much practise with the crew a fair fluency in its eight thousand common words.

SOMETIMES, when he was not on duty, Ver Moti would tell us stories of the universe and its countless worlds. Many of them, he said, were inhabited by weird forms of life utterly different from anything on Earth. He told tales of his marvelous experiences on a Zongainian stellar patrol cruiser—of battles with creatures of metallic elements—of flights over intelligent animals weighing millions of tons—and of communication with civilized bacteria on great cold worlds of the outer nebulae.

On only a few planets in all the universe, he said, lived creatures in the forms of men. Most were barbaric but a dozen planets or more were inhabited by peoples with whom trade could be established. To these scattered worlds the far-flung fabric of the Zongainian prolo transport system reached.

Near the end of the fourth week the navigating crew announced that we had covered half of the distance to Dunsaan. Everyone became more interested at this and seemed to consider it a special occasion. Upon inquiry Ver Moti explained.

"When half a voyage is accomplished the motors are turned off and the prolo, turning about, presents its crystal propulsion plates forward. Then, after a short time of free 'gliding,' the motors are turned on, this time slowing the ship. The deceleration takes as long as the acceleration."

The period of free gliding, however, was what the crew looked forward to, as everything on board would lose weight. Different people, explained Ver Moti, were affected in various ways. Some became frightfully nauseated. Others had fits. Many were wholly unaffected by their weightlessness.

Crews were picked for immunity from "gravity-sickness," as prolos, by gliding at peak velocity, could cover vast distances using a minimum of fuel. Usually our ship glided for an hour or so, when the crew put on a sort of acrobatic circus trying all kinds of tricks of floating.

Late that "afternoon" the captain announced that the motors would be stopped the next day at noon. No one was to eat breakfast—as a preventive measure.

Next morning, as may well be imagined, we five passengers shared the excitement of the crew for the forthcoming experience. Lord Hanavan, who had read up on the physiological aspects of the case, hoped that we would not be sickened. We counted minutes until noon.

The navigating crew worked all morning over their incomprehensible

mathematics, gave their verdict and then the alarm bell rang. The crew stopped everything they were doing—and waited. "It's coming!" cried Ver Moti.

Suddenly I sensed my weight going. It felt like the lifting of burdens from my back . . . lighter . . . lighter. And then, without warning, we seemed to be falling. There was no motion of the prolo but over my body came that horrible feeling of dropping down . . . down . . . illimitable distances. The nearest approach to it I know is the sudden swoop of a roller-coaster car. But this was continual.

I made a wild leap for a stanchion when the cabin apparently began turning and twisting around me while I hung suspended in the center of the room. All my internal organs were rising upwards. Then I glimpsed the officer, upside down, his cape floating weirdly above, drifting toward me. He bumped me with a slight shock and his momentum carried us to the farther wall. There I clung, my feet resting upon the ceiling, while the crew, now all assembled in the control room, began going through the strangest performances.

Clothing, inanimate objects, round globules of liquid, all revolved and slipped and drifted back and forth, up and down through the room. After a few moments my brain cleared and emboldened by Hanavan, who was floundering about and having the time of his life, I pushed out.

Through all our subsequent adventures that first swim without weight remained in my memory as one of the oddest of experiences. It is impossible to describe the sensation of turning head over heels in mid-air, colliding with drifting chairs, pieces of clothing, balls of the sour drink made spherical by surface tension, and all the time filled with that most terrible sense of falling.

We glided for about twenty minutes when, the ship having been turned about by some more sober member of the crew, the alarm bells signaled that weight was about to be resumed. All floundered floorward hastily and then without warning we became solid material beings again and decidedly dizzy ones at that.

Professor Milroy and I led each other to the nearest couch where we rested. "Remarkable! *Remarkable!*" he kept repeating, rubbing a bruised spot.

Professor Pfeiffler sat heavily across the room, blinking at us in a not wholly displeased manner. Finally he found his voice. "*Gott im Himmel!* I schver, id's as goot as schnapps!"

IX

HALF of our voyage was now finished—for another four and a half weeks the prolo would be slowing down as it raced toward its destination. In spite of the fact that it was likely to be our prison for the rest of our natural

[*Turn page*]

60 Proof—Mr. Boston Distiller Inc., Boston, Massachusetts

lives we all began to feel a growing curiosity regarding the planet Dunsaan. Here we gleaned considerable information regarding our future home.

Dunsaan, Ver Moti explained, had a circumference a little short of forty thousand English miles. But its density being somewhat less than that of Earth its gravity was only slightly greater. The surface of the planet was going through a geologic age very like that of the earth's early Paleozoic—that is, it was mostly swamp and shallow seas, covered with a profusion of low orders of plant and animal life.

There was a transported population of thirty-odd millions from the neighboring planet of Duranko, a large sphere inhabited by a somewhat manlike race, and a few hundred Zongainians who maintained a dockyard for battle prolos. In addition there were about thirty exiles from Mother Earth, who had had the ill luck to stumble upon Zongainia. The principal industry was mining under the beds of ooze for the partly decayed bodies of a species of small reptile, much prized by the people of Duranko.

We were much interested in our fellow prisoners but Ver Moti could offer little data in regard to them. "They are," said he, "in the majority, prospectors, professional elephant hunters, Boers. Some have been here thirty years. There are the two exploring expeditions, of course. The Lloyd-Turnbull party of Nineteen hundred fourteen and the relief expedition. They number, I believe, six—I'm not sure though."

The four weeks passed like centuries. Every day, data collected, corrections made, came dinner. Then for us a movie entertainment—Zongainian dramas of weird adventures. I don't believe we saw a single play that might be termed a love story. Supper followed and another half hour for digestion, which we spent in patching our battered clothing. Then bed and sleep powders.

Next day the same thing over again. Near the end of the time, Ver Moti finally prevailed upon us to throw away our old khakis and wear the loose tunic, the transparent composition sandals and flowing cape of the crew. We found these surprisingly comfortable.

All things end at last and so did our journey. Once again the stars appeared in the sky, changed color, then remained. But what a difference! The heavens blazed with unknown spheres while directly below the prolo lay Alpha Centauri, a magnificent twin star of orange and green.

With some difficulty Ver Moti pointed out a little yellow disk far below. "That," he said, "is Dunsaan." The two suns whose glare illuminated the whole heavens cast strange green and orange lights upon the wall, dimming the Geissler lamps. With a small telescope we could make out the faint markings on the fast-approaching planet.

Then observations were suddenly stopped by the ringing of the alarm bell. We were going too fast—deceleration must be increased. I threw myself on the couch just as the iron hand of momentum pressed down. For a few moments my very breath was squeezed out and then the weight was released. The drastic measure secured the necessary result—soon the prolo was flying at the rate of only thirty miles per second just beyond Dunsaan's atmosphere. Professor Pfeiffler peered down with our glasses, staunching a nosebleed at the same time.

Rapidly the surface of the new world slipped below, a wide flat expanse of morass interspaced with shallow lakes and seas. Over all lay a murky haze, shutting out the sun's rays like a damp blanket. Finally an immense city, protected from the swamps by dikes, appeared. In its center we made out the rectangular structure of a prolo landingway toward which the chief navigator was piloting the ship.

Moment by moment the city rose to meet us until at last, eight weeks and five days after arising from Imperium, Zongainia, the keel of the space-ship

touched the steel landing cradle at Dunsaan, planet of Alpha Centauri.

As the last propulsion plate was turned off and the full weight of the prolo pressed the hydraulic landing rails deep into their concrete beds, the door was opened and the gangway run out. For a moment air rushed into the spacecraft, a peculiar pungent air, its odor reminiscent of cypress swamps, and then a number of men ran up the ramp to the door.

One of them, evidently of some authority, demanded to see the commander. She was at once sent for while the official waited impatiently in the control room. We five "passengers" made ourselves inconspicuous in a corner and watched. In a few moments Ver Vera Nadji, the commander, entered to be at once fairly leaped upon by the wailing man.

"Thanks to all our ancestors that you are here!" he cried in Zongainian. "We thought that your ship had been caught." He paused. Vera Nadji seemed astonished.

"Caught?" she repeated. "By whom?"

"You don't know? But then you have been out of touch for fifty-one days. We got our latest information from the Ethero beam transmitter at Waiko two days ago—'All unconvoyed prolos are to remain in the fortified dockyard.' It's war, Vera Nadji. If El Zoia has not ordered the battle fleet together already he will within ten days!"

VERA NADJI fell back in horror. "I thought they would settle it peacefully. The Interstellar Commerce Commission was in session."

The man laughed. "The Interstellar Commerce Commission—*bah!* Since Ver Miraza was Presonio it has done nothing but aggravate matters."

The commander of the prolo shook her head. "It will be terrible. Zongainia will win, of course. But for us it will mean scores of battleships destroyed—thousands killed. For them a planet ravaged, a whole race wiped out. They are idiots, Ver Muot!"

The official nodded. "Do you suppose they will come here?"

Vera Nadji shrugged. "Perhaps—but you have batteries, Ver Muot. And you will have battle prolos. What if they do?"

Ver Muot shivered, replying, "I'm more interested in being commandant of a repair station than a dead hero on a wrecked prolo."

The woman laughed and then, turning suddenly toward us, said, "Ah! yes, Ver Muot—and I have more colonists for your 'Discontented Club' here." She beckoned us toward her. "May I present Lord Mitchell Hanavan of England, Voya—Professor Sheridan Milroy of the same country—Dr. G. A. Cummings, America—Professor Ludwig Pfeiffler, Deutschland—and David Lawrence, America."

We all bowed and smiled in turn while the official murmured, "A day," a few times and then added something relative to our immediate removal to the foreigners' enclosure—the *Kont-se-el-heligz*. Vera Nadji deputized our friend Ver Moti to conduct us thither and at once fell into violent discussion with the dockyard commander.

With attention divided between the strange new world we were entering and the impending war, we descended from the landingway and got our first view of Dunsaan at close quarters. I confess it quite struck all thoughts of war from our minds. The city spread for miles in every direction, a heterogeneous assemblage of flat-topped white adobe buildings, none more than twenty feet high.

The walls were pierced at irregular intervals with round screened windows and doors through which passed the inhabitants. And such creatures they were! White, about four feet high, two-legged like men—but there the resemblance ended. The whole upper portion of their bodies was covered with a rubbery white mantle of skin under which a score or more of flexible retractive

tentacles undulated.

Their brains were contained in a limp lobe at the mantle. Their mouths, as we later found, lay underneath. These creatures' single eyes, fastened on the tip of one of their tentacles, constantly swayed back and forth as they walked. Looking at them one had an unforgettable sensation of flabby bonelessness—of a certain softness such as is associated with polyps. I think Professor Pfeiffler was the only one not overcome with revulsion.

"Vell," he remarked with gusto as we entered the first street, "ve got to dissect von uf doze!" This didn't improve our impressions much.

Ver Moti laughed. "They're from Duranko," he explained. "Sister planet of Dunsaan—same system. Intelligence a little below ours but rather clever in certain lines—quite deaf and dumb. Your friend Ver Milroy will have a time learning their sign language."

Apparently there were no streetcars in Dunsaan. The entire three miles to the foreign settlement was made on foot. We threaded our course along avenues crowded with the odd white creatures, who displayed no curiosity concerning us, until at last another white building under the brow of one of the city's protecting dikes appeared.

"This," said Ver Moti, "is the Discontented Club. You will find quite a nice group in there—they play cards and smoke and drink and have all the other odd little habits you like so well. So I imagine it won't be too hard."

He knocked on the front door which was opened after some time by a huge fat man smoking an immense Dutch pipe. "Vell," said he in English, "vat iss id now?"

Professor Pfeiffler, his eyes lighting, poured forth a stream of fluent Low Dutch to which the other, immensely startled, responded eagerly. Separating the two with difficulty we entered the building. Ver Moti officiated in the introductions and then left us, bag, baggage and not very much of either, in the main room. Our fellow exiles seemed very kind and friendly, ushering us to rooms on the upper floor and asking us numberless questions.

The house, a big bare structure once used as a warehouse by the Zongainians, contained five Englishmen, one Frenchman and seventeen Boers. The Englishmen were of the two ill-fated parties that had preceded us up the Nile—the Frenchman the sole survivor of a detachment of the Foreign Legion which had penetrated the forbidden land from the west—while the Boers had wandered in by twos and threes in the course of elephant hunts and treks after gold.

We noticed almost immediately a line of cleavage between the English and French and the Dutchmen. They lived in different parts of the building, ate apart and, we found, did not converse unless absolutely necessary. Our curiosity as to this state of affairs was soon satisfied, for that evening at the mess table the leader of the Englishmen rose and after introducing himself as 'Arry 'Awkins made a semi-official speech that was very illuminating.

HE COMMENCED by stating that at the time the second party entered the wilderness in 1914 the Great War was just beginning and that the Dutchmen, upon hearing the news told in a more or less partisan manner, immediately took the side of their neighbors against England. This feeling was not mitigated by the recent—to them—Boer War, in which several had received wounds. During the years of idleness in Dunsaan a bitter controversy over the outcome of the war had arisen and it had become one of the important topics of discussion.

Both sides imagined how its course was running—each favoring his own faction and each hopelessly convinced of his own correctness. Besides this the natures of the two nationalities tended to drive them apart. The English were forever talking and planning about escape—while the stolid Boers, satisfied

with an easy life and disliking the thought of physical danger, preferred to remain where they were.

Other things had further aggravated matters until the exiles were anything but the happy family they might have been. The Frenchman had fought a duel with a Dutchman and killed him. His companions complained to the commander, Ver Muot, but the latter refused to take any action, asserting that the quicker they killed each other off the happier he would be. At this juncture we had arrived with our store of news and fresh ideas, like a sea breeze on a desert. Ofttimes, however, a sea breeze can fan embers to a flame. And, as it turned out, this is what we did.

Hawkins was impatient for news from the world. Taking turns we stayed up most of the night, narrating the wonderful events that had transpired during the last fifteen years. The Boers came in too but made little comment. Hawkins nudged me as we ascended to bed and whispered delightedly something about, "Blimey, but our victory doesn't help their digestion."

Next morning at breakfast in the English quarters Hawkins, after suddenly opening every door for listeners and peering from each window, told us to draw near. Then he began to speak in a low voice, punctuating his discourse with many suggestive gestures and mysterious glances.

"It might look," he commenced, "like we was laid by 'ere for duration—an' maybe it woulda been if 'Arry 'Awkins 'adn't been along. Has soon has Hi harrived on this blasted planet, Hi thought to myself, ' 'Arry,' Hi thought, 'hit's hup to you to get hout of 'ere. Hit may take a long time but you're a long ways from old Lunnon, so don't get himpatient, 'Arry, me boy.'

"Well, we 'adn't been 'ere two months when Sir Percy—'e wot as commanded us, gawd bless 'im—discovered one of these 'ere space-flyin' boats lyin' in the swamp out 'ere has neat as you please with honly 'er engine gone and most of 'er side bashed in. Sir Percy said she 'ad been in a wreck an' hafter they pulled hout the machinery they left 'er 'ull to rot.

"Right away Hi saw the way we could pick up and leave these blighters henny time we choose by just putting in a new hengine an' patching hup 'er 'ull. So we started in swipin' hiron plates and parts of a hengine and Sir Percy got 'old of some plans—and there we was.

"But blimey, hit was slow. There was big iron castings and hall kinds of gadjets that Hi don't understand yet to sneak in—and hoften we went a fortnight without gettin' has much has a blinkin' bolt. But old Sir Percy, 'e was a good un, 'e got everything there and put together right.

"Then we found hout that we didn't 'ave no instruments to navigate with. So we 'ad to start hall over again. But then hit was five years ago last month Sir Percy died of fever. Hafter 'e was buried our luck left us. Hi was the only one as 'ad the nerve to swipe anythin' but none of us was sure 'ow to put the bloody swag onto the boat.

"Jenkins 'ere was for startin' hout without the instruments but Hi says, 'We've got plenty of time. Don't worry an' maybe 'Array 'Awkins can think hout a way.' So all we've been doin' for three year, come next September, his to pick up hextra hinstruments and load 'em hinto the machine."

He paused for a moment in his talk to peer out the window. Evidently finding all satisfactory he hunched a little closer and almost whispered, "These Dutchies, the blighters, don't know wot we 'as hup hour sleeves. Hif they did they would tell the Colonel, 'e wot calls isself Ver Muot, just out of spite because they are so mad we won the war. They want to stay 'ere, they do, an' they can until they rot, for hall Hi care. Hall we needs is a good mechanic to read the plans and fix the hinstruments and then the Colonel and the Dutchies can go to 'ell. Blast 'em!"

We listened to this picturesque discus-

sion with immense interest and, as may well be imagined, plied Hawkins with questions afterwards. In this manner we learned that the repaired prolo, a sixty-foot craft was partly imbedded in a pre-Carboniferous swamp about five English miles from the city and on its opposite side.

It was this distance which necessitated a long detour around the outer slope of the dike that made the Englishmen's visits to their ark so rare. The Zongainians, however, did not watch their prisoners very closely as escape seemed highly improbable and besides for some months they had been taken up entirely with their "bloody war," as Hawkins put it.

This led the conversation to the mysterious talk between Ver Muot and Vera Nadji on the transport. Hawkins knew very little save that there was some kind of trouble between Zongainia and a place called Kanan, evidently another planet. The impending war seemed so distant from our interests that we five newcomers soon considered it as unimportant as did Hawkins. Its main effect would be to make our jailers forget us, we hoped.

X

AFTER a week or so of settling down to satisfy Hawkins' sense of what would appear proper to the authorities, we made a midnight trip to the hidden prolo. Climbing out of a back window facing the dike the five of us were joined by Hawkins and the Frenchman. Without a word they led us up the embankment over the crest of the dike—some eighty feet high—and part way down its other side. Cautioning us to be careful of our footing, Hawkins proceeded ahead.

Heavy dank odors ascended from the morass below and now and then I heard thumps and splashes as though some large amphibians were moving about. The darkness was absolute for Dunsaan was moonless and its thick atmosphere prevented any starlight from filtering through. Had it not been for a dim phosphorescence which outlined the ground we could not have gone a step.

After nearly three hours Hawkins slowed down and began peering close to the ground. Soon he gave an exclamation of pleasure and picked up the end of a light woven-wire cord. Motioning us toward him he whispered, "Watch where Hi walk and keep 'old of the line, this swamp his bottomless."

Then, slipping the cable under his arm, he clambered down the bank to the flat. Hanavan, Milroy, Cummings, Pfeiffler and I followed while the Frenchman brought up the rear. At the bottom of the dike Hawkins, with the confidence of one on familiar ground, proceeded out upon a long spit of quaking land between black pools of water.

Ahead the cord stretched, rising dripping from the slime and soon covering our hands with ill-smelling liquid. No word was spoken. Hawkins skilfully stepped on long scaly logs, jumped across menacing pools, occasionally passed over a more or less solid island of rank grass. On either side I heard the scurry and splash of animals but evidently the denizens of this Dunsaanian swamp were very timid for we never saw one.

At the end of another hour of exhausting travel a dark metallic mass loomed before us and Hawkins stopped. He fumbled with the door, opened it and, after carefully wiping his feet, climbed in. We followed, thanking Heaven for having a floor underfoot again. Hawkins immediately made a light and showed us over the craft with pride.

Everywhere the work of a master mechanic was in evidence. Steel ribs had been bent into shape or replaced—plates had been welded on. The engines, complicated things as yet confusing to us, were all in place. Oiled, their fuel tanks full, they were ready to hurl the prolo into space as soon as the instruments were in place.

While Hawkins was showing us

around the Frenchman brought out the all-important plans. Lord Hanavan and Professor Milroy, who were the only ones familiar with the Zongainian written language, pored over them, saying little. The Frenchman and Cummings, who knew French, struck up a conversation in that tongue.

Professor Pfeiffler, armed with a flashlight and a light crowbar, went to the nearest island in search of specimens, while Hawkins entertained me with a lengthy history of his early life in the neighborhood of Billingsgate. Time passed quickly and soon the green rays of the first sun struck across the swamp to announce the coming of another day. The seven-hour night was over.

Hawkins was not worried—as much as three days had often been spent at the prolo without exciting suspicion. Opening a cupboard he brought out some anti-sleep powders to carry us over until we should return. "These 'ere Zongainians," he remarked, " 'ave a blinkin' powder for hevery hoccasion."

The short day was spent in much the same manner as the night. Hanavan and Milroy were evidently "getting" the plans for they took more anti-sleep powders and dissected one of the spare instruments with many knowing nods and Zongainian words. Between the equally lengthy anecdotes of Hawkins and the Frenchman, I fell gradually asleep. The last thing I can remember was the Frenchman saying, *"—et quand Marie m'a vu, elle m'aimait tout de suite, comme toutes les autres . . ."*

With the setting of Dunsaan's twin suns we prepared to return. Lord Hanavan, though his mechanical experience had been limited to motor boats and radio, had succeeded in installing the telescopic meteor-lookout and the speedometer. He assured us that the plans were not half as difficult as they appeared.

The green sun vanished and after a short period of orange twilight the intense night of the far planet descended. The return journey was started uneventfully, hardly a word being said by anyone. Through the dim radiance of the luminous plants we trudged, each occupied with his own thoughts.

Near midnight Hawkins turned sharply right and up the embankment. Some paces behind we followed, groping for the grasses of the crest. Looking upward I discerned the cockney's sturdy form silhouetted for an instant against the city's glow. Then, with a whispered gasp of warning, he rolled back upon us.

"A crowd in front of the 'ouse—Zongainians! Those Dutchies!"

OUR hearts scarcely beating, we carefully elevated our heads over the parapet. The building was flooded with light—a hundred Zongainians and a good thousand of the weird white people surrounded it. In the middle of the group near the door were the treacherous Boers and the four other Englishmen, facing Ver Muot and his guards. We could not hear what was being said but it was not difficult to guess. The Boers had found out our plans—and perhaps overheard where the prolo was.

I felt Hawkins tugging at my sleeve. "Back to the boat! Hi say—has quick has we can make hit!"

I started to wriggle down the dike when he seized my ankle. "Not *that* way—we 'aven't time. We'll 'ave to chance hit across the city."

Back we scrambled to the top of the dike where, hidden by the long grass, we crawled a hundred yards beyond the floodlights and then down into a dark street. Led by the wonderful Hawkins, we scurried along, ducking into the yard-high doorways when the mantled white people passed. It was fortunate that they were deaf, otherwise our loud breathing would surely have betrayed us. For a time we seemed to have eluded any search party but our hopes were soon shattered.

The Frenchman suddenly shoved Hawkins against the wall, hissing,

"Gar! La prolo—eet ees zere!" We crouched for a moment, watching the slender form go silently by, her searchlight flicking from street to street. Running now, we started out afresh. Again the prolo passed and again we were fortunate in hiding against the wall.

I thought we were hopelessly lost when between two buildings I saw, massive and grass-covered, the dike! Faint with the reaction, we struggled up its face and slipped down until our feet were in the morass. Hawkins searched frantically a few moments and then, holding tightly to our life-line, we started out over the swamp.

Haste was imperative for a faint glow indicated that dawn would soon be at hand. For centuries, it seemed, we floundered through rank grass and brackish water before the steel walls of our prolo came into view. Never did I see a more welcome sight! We piled in, this time not stopping to wipe our feet.

"We'll 'ave to start hat once!" gasped Hawkins as soon as he had found the knob which turned on the glow light. "They'll scour these swamps till they find us, that's wot they'll do. We got to be gone before daylight."

Hawkins and Hanavan went into the engine room to start the motors while Milroy and the rest of us screwed down the windows and door. Our terror of capture drove all sane reasoning from our minds. Even Lord Hanavan utterly forgot that half the instruments were unmounted and that we were quite without charts of the starry void into which we were going.

Fortunately the prolo was well supplied with fuel, food and oxygen. Indeed, the assiduous efforts of Harry Hawkins and his companions had filled every nook and cranny of the cabin to overflowing. We were not, however, in a mood to throw away provisions for comfort.

Thanks to the frantic efforts of Hawkins and Lord Hanavan the motors were started and the ship was ready to rise some time before dawn. We all assembled in the main cabin and after a pause, a sort of mental gathering of courage, Hawkins turned on the propulsion plates.

The craft heaved out of its muddy dockyard with a sucking sound and immediately poked its steel prow into a dense thicket of fern trees. Hawkins backed it out, the stern overturning a tree in the process. Then, realizing that the swamp was dangerous, he brought the prolo straight up a thousand feet. There we hesitated.

"Nos camarades!" cried the Frenchman. "Our friends, who have worked through all zee long years to make zees escape! Are we to leave zem behind?"

Hawkins, filled with emotion, could not reply. But Lord Hanavan did. "To descend now would mean certain capture," he said slowly. "We can do them a greater service by returning to the world and sending help than by giving up this ship over which they have labored. Let us go on."

As the prolo ascended beyond the last vestige of Dunsaan's thick atmosphere the twin suns rose above the horizon. Their light, though weird in its duality of color, had nevertheless a cheering effect upon us.

BELOW lay the dark bulk of Dunsaan with its fetid swamps and its weird inhabitants. Above, the starry universe glowed, incredibly distant. And we seven voyagers from Earth hung between the zenith and the nadir, like Mohammed's coffin, in a steel space-flying machine, about whose operation we knew next to nothing.

Now that we had left the closeness and excitement of the swamp we realized with awful clarity the position we were in. Hawkins knew the general direction of the Sun, but since everything ahead would vanish as soon as we went faster, visual navigation would never do.

"Hif Sir Percy was only 'ere!" wailed Hawkins. " 'E knew hall about 'ow to do hit."

But Sir Percy was, perhaps fortunately for him, beyond care of escape.

HOPE had reached its lowest ebb when Professor Milroy, who had been looking at Dunsaan through the glasses, seized my arm and cried, "One of their prolos—a big one! It's coming toward us!"

Hawkins looked—then I. Milroy was right. Already the strange craft was close enough to see without the binoculars, a tiny metal spindle gleaming in the sunlight. For an instant we were seized with a terror that we had been sighted but reason soon told us that our smallness would prevent our being visible at this distance.

Steadily the prolo arose; it was heading toward the part of the sky where the Sun lay. Almost simultaneously the idea flashed upon us—the way to get back to Earth. Follow that ship!

Immediate action was necessary! It was already past us. Leaping to the control chair Hanavan turned on the power. We were fairly thrown to the floor. For an instant the universe reeled around us. Then Hanavan had the car straightened out. With ever-increasing velocity we tore after the fleeing prolo, pressed flat by the violence of acceleration.

After a few ticklish moments we commenced to gain on the bigger craft. After lowering the acceleration rate to conform to that of the prolo ahead we had a short conference. Watches were appointed and upon Cummings' suggestion a special couch was laid beside the controls for the navigator to rest upon when the acceleration became too great.

The hours slipped by and the twin suns of Dunsaan reddened into oblivion. The weird color changes of our speed became apparent all around us. Only the prolo, showing dimly ahead, retained its true hue. At the end of four hours Hawkins was relieved by Milroy. The rest of us took sleeping potions.

When I awoke ten hours later the sky was a dead black. Dr. Cummings, at the controls, was lying flat on his back, staring upward through the glass roof at the other prolo. Looking around I discovered everyone else to be asleep. The ship was perfectly quiet, and save for the lights on the instruments, dark.

For a long time I lay still, my eyes upon the dim form of our guide. I noted that we were considerably closer, evidently because of the difficulty of seeing. The lights in her control room glowed like big stars, hovering motionless in a velvety immensity.

Somehow I felt an interest in the occupants of the ship. I wondered who they were and what they were doing. It reminded me of watching boats pass at night on the ocean—only here the ocean extended to infinity and the friendly lights ahead were our only link with life.

My mind filled with thoughts like these, I had begun to drowse off again when a violent lurch of our prolo half threw me from the bunk. Hastily regaining my feet I saw that Dr. Cummings was sitting up, gripping the control levers tensely, staring upwards. I followed his glance to see the ship ahead moving swiftly sidewise.

"Changed its course," hissed Cummings. "Wake the others!" I started to do this when Cummings countermanded his order. "All right now—they're going straight."

I relapsed into a dozing state again.

I do not remember how long we followed the prolo across space. It may have been a couple of weeks but I am not sure. After eight or nine days the other craft began to decelerate. After almost crashing into her we did likewise. Lord Hanavan was greatly disturbed.

"It took four weeks acceleration before we were halfway to Dunsaan," he explained. "If we've begun to decelerate after only a week or so it means that we are not going to Earth!"

Beyond any hope now we followed the guiding star, that had proved so false, through all of its many maneuvers for over a week, steadily slowing down all the time. Stars began to reappear. They passed through the colors of the spec-

trum and became fixed. It was apparent that we were either moving extremely slowly or were stationary. But nowhere was there a sign of a sun or a planet! The prolo before us hung motionless in the sky as if waiting for something.

Waiting—but for what? We put in the hours as best we could, installing more instruments and a little rapid-fire gun which Sir Percy had acquired. It was mounted in an airtight chamber built in the control-room floor, with its muzzle, ready for action, projecting into the vacuum of space. Hawkins entertained us with stories of escapades in London during his youth. We hardly noticed that our weight had dropped to nearly zero.

Three days passed in this fashion and then, while we were listening to one of the Frenchman's stories, Hawkins on watch called out, "Ahoy there! There's hanother blinkin' prolo 'ard haport an' hup a few points."

The Frenchman's story was suddenly interrupted. Looking in the direction indicated, I made out the fish-like form of another space-ship slowly approaching our guide. The latter made no movement. For some moments we watched this meeting and then Milroy, with his glasses, made out two more prolos dropping slowly downward from above and behind us.

Soon these were visible to the naked eye and more had materialized out of the void. All assembled with the first ship in long lines. It suggested battleships arranging themselves in a convoy. At once we thought of that overheard conversation back on Dunsaan. The war . . .

XI

IN SCORES now the prolos silently appeared and fell into place. Huge craft—one had a feeling that they were not passenger or freight ships—and droves of smaller ones, some no larger than ours. It was like a review or a parade. Engrossed I watched the lines form and then start slowly away. Now upon each ship there appeared a blaze of light, a signal of some kind. I became conscious that Milroy was speaking.

"I say, if we can get in with those fellows they'll think we are in their party. Let's go over to that group of small ones above and get into line."

It was a good suggestion. While Hanavan, who was the best navigator, operated the controls the rest of us cleared the boxes of food and fuel from the control room to make it look shipshape in case anyone should look into our glass roof.

The ten miles or so to the swarm of small prolos was soon covered. Hanavan deftly maneuvered our craft into line and then, following the blazing light of a leader, we picked up speed. Weight returned with acceleration and within three hours the Döppler effect had extinguished every star. But now, before and behind for thousands of miles, we could see a miniature Milky Way, the pilot lights of the fleet.

It is a wonder to me that we were not discovered at once in our deception. Our ship had no signal lights or neon-tube number outside and for all we knew might have crowded into another craft's place. But, either by accident or carelessness, we were not apprehended. The immense fleet, numbering many thousands, swung majestically across the sky, our little fugitive prolo a part of it.

For six days we accelerated—then reversed and commenced to slow down. Another six days and we would come to a stop. Then—

Five passed. The stars reappeared magically and, evidently to prevent confusion, the artificial stars of the fleet commenced to blink. Ahead of us a misty glow like a dim nebula came into being. The line of lights pointed in its direction. We felt a certain tenseness. Something seemed about to happen.

Something did! In empty space about fifteen miles ahead there was a terrific explosion. A gigantic sheet of

greenish flame spread soundlessly, enveloping a dozen prolos in its folds. For half a minute it lay across the sky and then faded away, leaving the battleships twisted glowing wrecks. Instantly along the line little pinpoints of blue fire began to appear. For five minutes this continued, then ceased.

A pause—then far, far to one side the sky was lit with tiny green flashes of flame that grew and faded. We waited, amazed. Then, without warning, another sunburst of fire leaped up, closer this time, for I distinctly saw a sixty-foot craft like ours crumple and grow red-hot a mile away.

Now the little blue sparks began to fly in earnest. Every battleship fairly glowed with them. In the distance came the answering flame bursts. Suddenly we realized what we were witnessing. Our fleet was in battle with the enemy. Men were being killed by the thousands around us and at any moment we might be engulfed by one of those gigantic explosions.

I noticed that our fleet had divided itself into two lines. One was turning toward the invisible enemy while the other, in which we were, continued in the direction of the round nebulous patch.

Not disappointed at leaving these rather dangerous pyrotechnics behind we increased speed again. Lord Hanavan filled the little gun's chamber with air and, after going over directions again, loaded it. It could fire two thousand shots before reloading was necessary.

Two hours passed. The battle had vanished long ago. Our half of the fleet, barely moving, neared its destination. Its luminous corona now filled half the sky and in its center we could discern a ball about the size of a full moon. Dr. Pfeiffler suggested that it might be the planet Kanan.

Now there was a change in the fleet's formation. The line turned, presenting its length to the planet and forming a wide crescent. Thirty minutes passed. Slower and yet slower went the armada as though its commanders were suspicious. Without warning every light vanished. We turned out our cabin lamps, depending upon the dim glow from outside.

And then, in front of the crescent, the sky became a green inferno. By the hundreds—by the thousands—the enemy shells burst. Some prolos more advanced than others were destroyed while right and left the ships glowed again, this time with the fleet's answering fire.

The planet's atmosphere became speckled with green. Then the crescent hurled itself forward. Flinging himself upon the controls Hanavan urged our little craft on too and shouted to Hawkins to be ready at the gun.

"We're in it now!" he cried. "It's fight or die!"

There was no time for thought or reflection. Though all was silent save our own excited voices I could imagine the roar that would sound if there was air. On we rushed, sometimes surrounded and once actually touched by a green flame. Ships on either side went down —but still the thousands of the Zongainian fleet poured in.

The planet grew until it filled half the sky and a faintly audible whistling betrayed its outer atmosphere. As we descended the air grew luminous. I caught glimpses of streaks of lightning but whether these were natural phenomena or part of the battle I cannot say.

Near our little prolo we saw another battleship, huge, shadowy, slipping ghostlike through cloud banks. Through the windows came the first thunderous echoes of the battle, growing louder as the air grew denser. Suddenly we saw other space-flyers below like a shoal of whales. They sprang into life the instant we sighted them.

Spurts of green flame came spitefully from their sides and shells burst about the Zongainian ship with heavy concussions. The air waves threw our little craft about like a chip. The Zongainians,

still dropping, returned the fire. I had the satisfaction of seeing one of the enemy turn end upward and drop. A faint crash, arising from the depths, told of its finish.

FOR five minutes the air was filled with bursting shells. The Zongainian prolo now had a gaping hole torn in her side. Her drop was becoming more pronounced. Lord Hanavan directed the nose of our tiny ship toward a battleship below and I pushed the firing button.

The other was immediately surrounded by a ring of fire and backed away, evidently disabled. But now the ground appeared. Clouds of smoke obscured the view so we got only an occasional glimpse of Titanic buildings, grotesque twisted masses of wreckage, shattered battleships . . .

The Zongainian, her stern dropping lower and lower, struck a tower. With a roar the mass of masonry fell and then the prolo, giving a last burst of fire fell heavily into the city, leaving a dozen buildings in ruin in her wake. At the same instant there was a blinding flash of light, an ear-splitting concussion, and amid a shower of broken glass and hot metal our little craft fell into the chaos below. With this all consciousness of the battle ceased for me.

My return to the land of the living was preceded by a tortuous succession of nightmares in which I was pursued across a limitless blue void by a pack of steel monsters with gaping jaws. Flames darted from their mouths and bolts of lightning, like pointing fingers, indicated me to my relentless enemies.

After an eternity of this mad chase across space I began to hear a faint pounding, a metallic ringing like a blacksmith's anvil, interposed with heavy dull thumps. Strange odors were wafted to my nostrils and, as if at great distance, I heard the confused voices of many people.

Gradually I became aware that I was lying on my back on some kind of a couch and that my limbs and head were curiously numb and heavy. For some time I lay still, not opening my eyes, trying to remember what had happened last.

The vague meanderings of my mind were suddenly interrupted by footsteps, and a voice near at hand. It spoke in Zongainian. "Well, how has time treated our six runaways? Have any more died?"

I could not quite catch the answer but a sudden gripping feeling passed over me. Who had died? Making a desperate effort I opened my eyes and then blinked in amazement.

For an instant I thought that I was the one who had gone and that I was already in some trans-stellar inferno. I was lying on a narrow cot along with a hundred or more similar beds upon a steel shelf much like the gallery of a theater.

Fifty feet overhead a twisted metal roof curved, ending abruptly in a long jagged tear. Out in front of our shelf was a rubble of crumpled space-ships and shattered buildings heaped in incredible confusion and, as I discovered by hard peering, covered with hundreds of tiny men, who were clambering about hauling on ropes, pounding and hammering and operating machines.

Now and then the light of some welding apparatus would glow like a firefly, sharply silhouetting its operator in the gray gloom. This amphitheater was bounded by a serrated scarp of immense buildings, all battered and seeming ready to fall at the least shock. After staring at this chaotic spectacle for some minutes I turned my head, observing that it was covered with a rubbery bandage, and looked at the speaker who had awakened me.

He was a tall Zongainian, dressed in a sepia cape and wearing a turban-like headdress. Seeing me move he came over to the cot where I recognized him to be our officer friend on the outward trip, Ver Vlygar Moti.

"A day," said he, using the universal

Zongainian greeting, "or rather a night, for these Kanan days are hardly bright enough for such a term. Well, you seem to be on the way to recovery. We thought you were gone when we hauled you out of the prolo. How did you ever get here? We leave you safe in Dunsaan for life and in the next fifty days you come shooting right into the midst of the biggest war in ten centuries—and alive too!"

"What happened?" I asked. "Where is the fleet and where are we?"

"In Kanan," replied Ver Moti. "As far as we know the Zongainians have won but our battle prolo was disabled at the same time yours was. It fell into the city of Kanan. Our ethero communication apparatus was hopelessly smashed so we cannot call for aid.

"The crew—about five hundred who are alive, not counting the hundred and twenty wounded—are trying to dig out a small cruiser and repair it. But have patience. Your wounds will be healed within ten days and in the meantime you need rest. If you persist in asking questions we will have to give you sleeping potions as we did to your friend Ver Hanavan."

WITH a few more words delivered in a similar tone, Ver Moti left me to my thoughts and contemplation of the scene before me. I wondered how serious the plight of the stranded Zongainians was. Their battleship, which lay athwart two buildings in the background, was wrecked beyond repair and in the twisted chaos of the amphitheater I could find no ray of hope. At any moment a Kananese prolo might fly overhead and have the Zongainians at its mercy.

For an hour or so I watched the scene and then, after drinking some warm milk-like fluid, I fell into a sound sleep.

And so a week passed over Kanan with its eternal misty twilight and we lost souls in the hands of fate. D'Arcy, the Frenchman, had been instantly killed when the prolo struck. We others, protected in a measure by the steel roof, were only cut up generally by glass and torn metal. Injuries, which without Earthly medical science might have proved fatal or resulted in lifelong mutilations, were conquered by the wonderful surgery of Zongainia. Ver Moti assured us we would not bear a single scar as a memento of the mishap.

Each day more of our rubbery wrappings were dissolved until, at the end of eight days, everyone except Hawkins could leave his bed. In response to our earnest wishes to help, Ver Moti finally conducted us to the headquarters of Vera Nadji, one-time commander of the battleship. Her rooms were located, as were the quarters of the crew, in one of the least-damaged buildings facing the square.

Vera Nadji received us warmly, wanted to hear about our escape and considering it to be a joke on Commandant Muot. Then becoming serious she told us more of the situation. The city of Kanan, capital of the planet of the same name, had been completely evacuated some time before the battle. Just where these people were—the city, she said, housed more than seven hundred millions—no one knew. The Kananese land army was somewhere about but where was a matter of conjecture. The prolo fleets of the two combatants, after the first engagement above the city, had vanished into space and might still be fighting.

The last word Vera Nadji had received was that the Zongainian First Fleet had the enemy on the run. Since that time, eight days ago, she had heard nothing.

The only hope of the crew lay in a damaged hundred-and-fifty-foot cruiser which was half buried in wreckage across the square. Here the technicians and mechanics from the Zongainian battleship worked continuously. Chemical blowtorches made the steel and concrete debris flow like water while the engineers patched and replaced the machinery inside.

As soon as we were recovered we all went to work shoveling concrete to make a landing place. We toiled almost frantically, watching the foggy sky with one eye and by a sort of mass suggestion praying patriotically for Zongainia's success. We were much like ants struggling there in that Titanic city. Its thousand-mile streets impressed me, at least, much more than the millions of light years of the universe.

There is no night in Kanan's eternal half light and so I cannot tell in days how long we were there. It might have been years. But Lord Hanavan, who alone kept his watch going, is sure that this lull, if such activity might be so termed, did not last over three weeks.

In that time the small prolo had been disinterred and made ready for operations upon the crude landingway. Fuel and other supplies were being rushed in by the crew and Vera Nadji, with her communication experts, was busily tinkering with the ethero receiving set, the remains of which had been recently installed on board. We escaped prisoners, in the general democracy caused by the disaster, were somewhat privileged characters. We were in the lower storeroom, forward of the generators and coils, packing food crates on top of the condensers.

Overhead sounded a steady tramping as the crew crossed the control room with their loads. The air in the little windowless chamber was stuffy and so, after half completing our task, we sat down to rest. Hawkins said he wanted a drink and went outside to get it. The rest of us sat for about five minutes, talking intermittently about something or other—probably our fate when Vera Madji's crew rejoined the First Fleet.

I remember that Professor Milroy was making some remark about inscriptions he had found in a half-wrecked building when, utterly without warning, there came a deafening roar and a concussion that hurled us and our crates together upon the floor. The prolo seemed almost to stand on end for an instant, then fell back on its bed.

For a moment there was utter silence and then a bedlam of cries and shrieks broke forth. We heard footsteps running back and forth above and someone shouting that Vera Nadji was wounded. Then all else was blotted out by another blast at a greater distance.

It was followed by the slip and thud of falling masonry and a long-drawn tinkling as of glass. We lay for a few seconds, partly stunned by the first explosion, and then Lord Hanavan shoved a box to one side and scrambled to his feet.

"Another battleship . . ." he started to explain when a lurch of our craft made self-preservation of prime importance. This time, however, the prolo moved by herself—a hum from the motor-room told us we were rising.

XII

PICKING ourselves up as quickly as our bruises would permit we hastened to the ladder leading to the control room. Above was a scene of indescribable wreckage. All of the "non-breakable" glass from the front windows was lying in tattered shreds on the floor. The instrument panel was buckled against the partitiion while the wind whistled through hundreds of rents in the steel sheeting. About a dozen people were in the room, some of them with blood streaming from open cuts. One was in the navigating seat while others were at work upon some kind of a gun.

A mile below lay the towers of the city and almost directly underneath hovered a thousand-foot prolo. As soon as we appeared Ver Moti, his face bloody from a cut, leaped toward us and shouted for us to bring up a power cable. He made a vague gesture toward the gun and then below. "Kananese," he added hastily. "Surprised us. They are bombing the camp. Haven't discovered we are gone yet."

At that instant another figure appeared, one arm held limply against her

body. It was Vera Nadji. "Use bombs," she snapped at Ver Moti. "The auxiliary coil is out. Can't spare power for the gun. Drop a kanfrene on them."

Ver Moti fell back a pace, his face white. "But," he stammered, "our comrades . . ."

"They will have to take the chance if they are alive yet," answered the commander. "Let the Kananese know we are here. We can lead them away from the square."

Ver Moti left on the run without another word. Cowering back into the passageway, we watched the proceedings. Ver Moti, leaning out under the broken window, pointed a small gun down and fired several times. Sticking my head from a porthole I saw tiny green flashes on the back of the battleship.

Immediately our craft wheeled and rose sharply while the enemy commenced to ascend. In response to the navigator we swung sideways to take advantage of the floor propulsion plates, then shot off at an angle. A second after we had started the air behind turned a brilliant green with bursting projectiles.

Now the chase began in earnest. The battle prolo, moving ponderously, filled the air about us with shells while it rose from the Zongainian encampment. The crew of the small prolo lined up at the windows and returned the fire with their hand guns, apparently without effect. While this was going on I noticed Ver Moti coming up from the storeroom with a small metal case. With remarkable care he laid it upon the floor and took from it a small black bottle.

Drawing Vera Nadji back he handed it to her, saying, "Better do it soon. They may get us any time."

She said something we couldn't catch, then began to issue commands. The prolo turned sharply about and started back, ascending above the larger ship. With a feeling of horrified anticipation I kept my eyes glued upon the tiny oval phial in Vera Nadji's hand. Now I saw that Ver Moti had taken several more from the box and was passing them out to the crew. One by one he gave each man a bottle and then came over to us.

"Here," he said, "kanfrene bomb. If everyone else misses, throw it. Wait until the last . . ."

At that instant the ship commenced to climb again and Vera Nadji shouted, "*Now!*" From the front window I saw her arm flash out, hurling the little bottle outward and downward. Breathlessly we waited as second followed second. Then on the roof of a building just below the enemy craft a volcano seemed to erupt. An immense sheet of flame leaped up, completely enfolding the battleship. I glimpsed skyscrapers going heavenward en masse and then the sound wave hit us.

Just what happened to the Kananese battleship I do not know. We five Earthlings, who possesed no sea legs at all, landed on the floor en masse too and while we were picking ourselves up the prolo left the vicinity of the explosion at a velocity of three thousand miles per hour. Later Ver Moti told us that the enemy craft was probably melted by the heat. Kanfrene, he said, was a Zongainian word meaning "bad atom" and its explosive violence was due to the release of atomic energy.

After the destruction of the Kananese battleship Vera Nadji did not linger in that part of Kanan. Other prolos were sure to come and then all would not be "restful to the nerves" as Ver Moti put it.

After an hour or so of traveling above the city our commander ordered a descent made upon a gigantic and partly-wrecked landing stage. Surrounded by thousand-foot beacon towers it lay, a plateau of metal and concrete a dozen miles long, athwart the roofs of a hundred buildings. Seen from above we could make out that one end had sagged downward, possibly from the collapse of some structure below. Here and there amid the twisted girders and crushed masonry lay ponds of mercury, spilled from the shock-absorption cylinders.

Under the guidance of Vera Nadji herself we dropped vertically past the towers and finally, more than two hundred feet below the stage floor, we settled to rest in one of the larger lakes. It was the ideal retreat for the repair work we had to do. The thick-walled buildings with their round windows arose on three sides while on the fourth we were sheltered by the over-hanging platform above. Almost as soon as the motors were stopped we all set to work on the little prolo.

A foraging crew was sent out to cut sheets of flexible glass for the torn windows while a marvelous electric welder did wonders patching up the crumpled side of the roof. No less efficient was the bandaging applied to the cut and bruised crew. The blood was washed off, the wounds expertly closed by the ship's surgeon and a syrupy liquid, which immediately congealed to a flexible transparent solid, was poured on.

EVERYONE turned to, even we outsiders, finding jobs. Lord Hanavan was an expert glass fitter, while Professor Pfeiffler and I found work feeding flux into the hopper of the welder.

The scene is one which will remain long in my memory. The towering steel columns of the landing stage, the black immensity of the abysmal streets and, reflected brilliantly in its bath of mercury, that wonderful machine which had brought us hither—the prolo. Over the whole scene flickered the green lights from the welding machine while the toiling Zongainians cast hundred-foot shadows on the building walls. Their low voices and the occasional clang of metal on metal were the only sounds in all the city. All else were grey, silent, forbidding.

After seven hours of work Vera Nadji, at the welding machine, gave the command to rest. Tired and hungry we crowded into the control-room, where food was served. Here the first mention of the future was made. Our commander, finishing her gelatine hurriedly, stood upon the navigating chair and spoke. Her words were calm, confident of success.

"Within a day and a half," she said, "we can return to the pit. We shall take on all of our comrades who still live and then seek the fleet. Let us hope that Zongainia has given these Kananese a demonstration that they will not forget."

Later, while most of the crew slept, our old friend Ver Moti explained in a low voice the cause of the trouble between Zongainia and Kanan.

I cannot remember all the complicated reasons he gave but the basic cause seemed to be trade rivalry. Property of the Zongainian *Interstellar Transport Association* had been confiscated by the Kanan government under pressure of the *Kanan Transport Company* and demands for reparations met with diplomatic insults. The trouble was evidently of long standing. There had been friction between Kanan and Zongainia since the first Zongainian space-ships had landed there.

"That," said Ver Moti between yawns, "was around the year Thirteen-fifty according to the Christian calendar." Ver Moti fell asleep in the midst of a discourse on price wars between planets but it did not bother us in the least because we were already far away from interstellar battles, dreaming of a snug little planet that lay in sunny ignorance of the giant universe that lived and fought around it.

"Morning" brought fresh labors for all. While repairing the auxiliary induction coils it was discovered that the supply of wire was exhausted. This seemed an insurmountable difficulty, especially as we had no wire-drawing machine. But Vera Nadji, the resourceful, had the solution. In the buildings around and below us, she said, was enough wire for a million prolos. After some discussion it was decided to send Lord Hanavan, Professor Milroy and myself to get it as we were about the least useful members of the crew.

Preparations for our departure were simple. We were given wire cutters, electric lights and some concentrated food for lunch. Ver Moti stopped work long enough to tell us where to look for wires and then, after solemnly shaking hands with Cummings, Pfeiffler and Hawkins, we took our departure.

Professor Milroy was delighted with the opportunity to be alone. "Finally!" he cried, rubbing his hands together, "I can study those inscriptions and the buildings! What we might find inside them! What contributions to anthropology! Oh, we shall have a day!"

After which he almost fell into a pond of mercury and so became silent for a time.

Scrambling over the heaps of debris we soon entered the nearest building. Lights on, we walked in a line down a vast echoing corridor which extended ever before us into the darkness. Now and then shadowy halls led off to one side into unknown regions but a fear of losing our way kept us to the main passage.

The instant the prolo was out of sight and sound a cloak of gloom seemed to settle upon us. Not a ray of light penetrated the enormous structure and only the echo of our own hushed voices disturbed the silence. Everywhere the passageways extended like the vaults of a crypt, decorated here and there with garish murals of goblins or whatever deities the Kananese had. Ahead our shadows marched—while behind the darkness crept in stealth upon our heels.

At first Professor Milroy's scientific ardor made him oblivious to all save the decorations and inscriptions on either side. But bit by bit his voice became hushed until he only whispered an occasional monosyllable to one of us.

I tried to imagine the city full of people but somehow it was impossible. The concave floor suggested a sewer inhabited by rats only—while the hideous figures painted on the walls hinted of inhuman horrors around the corner. We tried to concentrate on the search for wire but our eyes continually wandered ahead where the shadows fled before our lights or behind where they came after us. To one who has not been in the buildings of a deserted Kanan it is impossible to describe the formless terrors which grew upon us.

It was not a fear of death or of the supernatural. Indeed, had a live ghost appeared, we would have welcomed him as a brother in this far planet. It was an unimaginable thing, a sort of sinister essence waiting, waiting, for us to descend beyond all reach of the Zongainians, when it would . . .

MY REVERIE was broken by the voice of Hanavan in the lead.

"Light ahead. I think we have passed through the building as Ver Moti said."

We hastened on and shortly were standing on a sort of balcony overlooking the street. Three hundred feet below it lay, two wide stone avenues with a canal in the center. Overhead the buildings soared perhaps a thousand feet.

They were massive things with enormously thick concrete-and-stone walls, but somehow the entire scene lacked the mechanized, the civilized appearance of Zongainia's streets. Blocks of stone and a canal in the middle—no sign of machines or tracks or any of the appliances of science which marked the difference between a modern street and one of Rome or Babylon. One felt that it was primitive and incredibly old.

After spending some time on the balcony Professor Milroy found a passage running parallel to the street and separated from it by a wall pierced at intervals with windows. Down this we walked, the beam of Hanavan's light following the upper moulding.

We had not gone fifty feet when in a side hall we found a thin ribbon of metal covered with transparent insulation and fastened to the wall with some kind of glue. This we ripped down, cut and placed in a coil where it could be found on the way back. Then on again.

The hall descended gradually until, after we had progressed a half mile, there appeared a large ornamental door leading directly onto the stone paving. With a sigh of relief we hurried into the open, away from the gloomy passage. At the edge of the canal were a number of flat slabs of stone and here we stopped to eat. According to Hanavan's watch we had been gone three hours and a half.

Lunch of Zongainian concentrated food does not take long and so, after doubtfully considering the canal water, we started out with thirst unslaked. About a mile down the great street there was an intersection where we could make out a heap of wreckage and a mass of twisted wire. Toward this goal we turned our steps, following the canal.

Once Milroy saw a large yellow eel-like thing in the water but lack of lines or hooks saved it. And once we were all startled by a raucous squawking from the upper floors of a building. We never saw what kind of a creature it came from.

The distance to the pile of wreckage was much greater than we had estimated for, after an hour's steady tramping, it was still quite a way off. Professor Milroy grew tired and suggested that we try inside the building again. Accordingly we entered the nearest door where almost at our feet we found a big roll of fine wire, the ideal thing for the damaged induction coil. After a short rest it was decided to go straight through the building instead of retracing our steps the length of the street.

To a sane person this may sound foolish but our nervousness had made us anything but sane. Our first relief at getting into the open was now replaced by a fear of being seen by someone or something hidden in an upper window —by some queer twist of reasoning we thought that by keeping to the darkest halls we might sneak through without being found. Whatever it was we could hide from I don't know, for during all the time we had been in the city we had found nothing alive.

However, we entered the structure and, choosing a ramp leading in the general direction of the space-ship, started up. We marched on for four solid hours thereafter without catching the slightest glimpse of light. The hall, now wide, now narrow, wandered on in a course gradually more tortuous. In the walls were innumerable round locked doors. Hanavan said they must be the entrances to apartments. Fatigue and a growing horror of our condition quenched any curiosity.

NEAR the beginning of the fifth hour after leaving the street we discarded the bundle of wire. Bitterly we cursed it and the day we set out on this mad adventure. A little later we came to a halt.

Physical exhaustion prevented further walking—no matter where we were. After discussing the question of sleeping in the open hall we proceeded to batter down one of the doors in an endeavor to find a reasonable amount of shelter. The door soon gave but when we entered the chamber we received a terrible mental shock. Standing in a group in the center of a round chamber were four people—weazened, hideously yellow and all pointing or making some kind of gesture at us. We sprang back and Lord Hanavan raised the wire cutter—our only weapon.

The four made no move—they only watched us with glittering yellow eyes. For ten seconds we stood in the doorway, as motionless as those before us, and then Hanavan slowly lowered his weapon. We peered closer and Milroy managed to gasp out "They're dead! Embalmed! Stuffed!"

The next instant we fairly tore out of the room and in spite of our exhaustion ran far up the corridor before pausing. Avoiding the now sinister round doors we finally huddled together in a remote corner of the passage. After extinguishall lights we lapsed into a fitful slumber broken by nightmares of pursuing fiends from dusty burial chambers.

XIII

I WAS aroused some seven hours later by Professor Milroy, who clapped his hand over my mouth and hissed, "Not a sound! Something's coming!"

I sat up hastily to discover by sense of touch Lord Hanavan on hands and knees, listening. For many minutes we waited, hearing nothing. Milroy insisted in whispers that he had heard footsteps and a dragging sound and Hanavan once silenced us to listen long for the repetition of distant laughter. It never came. Perhaps it was the creature which had called in the street.

In any case it was apparent that unless we soon escaped from these endless passages we would go insane. At first we feared to put on our lights but once it was done we felt better. The hall was empty as far as the beams would reach.

Before resuming the trek we had a short conference. Lord Hanavan wished to return to the street the way we had come but Milroy and I opposed him. There were too many side tunnels, too many forks. And besides, the thought of passing that open door and the grisly statues inside deterred us.

It was finally decided that the best course was to ascend to the city roof, where we could find the wrecked landing stage more easily. But how to get there was the question. We commenced marching as we talked, keeping to those passages which had some upward slope. An hour or more passed this way when around a corner appeared a light.

Hurrying to it we found ourselves looking out a window far above another street. Below lay the same wide double stone avenue with the sluggish canal in the middle. But the cheering thing was the sight of a broad flat roof less than fifty feet overhead.

Prof. Milroy essayed a weak cheer and we started again. Less than a hundred feet brought us to the bottom of a ramp, at whose other end I could discern the grey sky. We fairly ran up that last passage. Abreast, Hanavan and I smashed the door open and sprang out into the roof.

For some moments we fairly capered, so great was our joy at escaping—and then we commenced to observe our surroundings.

The ramp terminated upon a platform on which we stood. On three sides it sloped gently down to a flat gravelly plateau, extending a hundred yards to the nearest street. Across that another building roof continued at the same level. Mile after mile the roofs extended, a vast plain crossed with chasm-like streets and dotted at intervals with skeleton-frame towers. Far away we could dimly make out through the mist a mass of immense buildings.

Hanavan pointed to these and said, "That's evidently the downtown section. We are in the suburbs."

Now that we were comparatively free, the next job was to find the prolo. This would have been simple except for the fact that we had not the slightest idea which way to go and that the landing stage was nowhere to be seen. Hope ran high, however, so choosing at random we started along a street toward the nearest steel tower.

Hanavan's idea was to climb it but after less than a half-mile we found the route blocked by a cross street. Somewhat discouraged we sat down on the parapet and ate a little more of the concentrated food. It occurred to us that it might be a good idea to be sparing. Some ten minutes passed, when Professor Milroy leaped to his feet with a whoop of joy and, pointing skyward, commenced a wild dance.

Following his arm Hanavan and I looked up past a steel tower into the haze and there, cruising slowly in our direction, was the prolo. Crying something about the visibility of a moving object, Hanavan started running toward it in an erratic course. I followed, first spitting out in great relief the unpalatable Zongainian food tablet.

The prolo evidently sighted us immediately for it accelerated and dropped

lower. As it neared us I saw a door open on one side and several heads appeared. Suddenly I collided violently with Lord Hanavan. He was standing still, wildly beckoning Milroy, a hundred feet ahead.

Out of breath, he turned to me. "That's—that's not the same prolo . . . larger . . ."

Not comprehending his words, I looked more closely at the now near craft. It *was* larger and of a different design. The next instant it was hovering thirty feet above us and I could see the faces peering down. They were angular, yellow, alien looking.

Swiftly the ship descended until its landing rail grated on the roof. Immediately a dozen men sprang out, all armed with tiny Zongainian small guns. In Zongainian they cried, "Who are you? From what prolo do you come?" Struck by a sudden fear we could not answer at first. The leader of the party appeared to become angry and then he commenced to laugh. The other joined him, giving vent to a high-pitched cackle.

"Oh!" He chuckled. "You are surprised to find a Kananese cruiser above Kanan? You thought they were all wrecked or captured by your invulnerable First Fleet? Ha, but you have much to learn! The First Fleet, the mighty First Fleet won't be boasted of much longer!" And with that he burst out anew until he fairly wept.

Now indeed we knew the fullness of our misfortunes. No sooner had we found our way from the city than we had walked like babes into the enemy's arms.

WHILE the Kananese were still indulging in their hilarious glee Lord Hanavan addressed Milroy and me in a low voice in English. "Don't mention Vera Nadji and the ship or they'll get them all. Say that we were marooned by a Zongainian battleship. Make them think we're friendly."

The commander, attired in a long yellow robe, approached us. "Come, my friends from Zongainia," said he, "you must not keep a cruiser of the Imperial Kanan Fiong waiting. You are going to have a rare honor—that of witnessing the end of your countrymen. You shall see the flagship El Zongainian itself crumpled to molten wreckage. Oh, it will not be long! *Come!*"

The crew closed in about us and knowing that resistance was useless we followed. The prolo immediately arose vertically to a height of many miles, affording a wide view of the city, and then proceeded in a horizontal direction. He of the yellow robe approached. Bowing to us he spoke, suavely.

"May I introduce myself. I am Ver Unkar, nineteenth Imman in the Navy of Lao Refi, Imperator of Kanan, Owner of All Souls, Arbiter of Life and Death and Future Emperor of Zongainia. Have you names, Zongainians?"

Lord Hanavan, as spokesman, drew himself up and replied, "You are mistaken. We are not Zongainians but unfortunate explorers from another part of their planet, who were dragged into this conflict against our will. We make no cause with them and deseire only to return."

The Commander, Ver Unkar, commenced to laugh again and then stopped. "I would not believe you but for your complexion and accent but you may be right. We shall see when we arrive at our citadel. Now to the point. We find you wandering, like lost *shivars* on the roofs.

"You could not have flown there—therefore the Zongainians must have left you. I judge you don't like your abductors any too well. So tell us all about it and Kanan may return you to your world when its fleets sweep the universe of Zongain scum. What have they done to you?"

I had known Lord Hanavan for an archaeologist and explorer but I confess that during the next half-hour he impressed me as being a first-rate actor. He described our adventures minutely and alluded to El Zoia, Ver Moti and the others in terms that would hardly be

complimentary to them.

He ended by describing how we had been ruthlessly cast away to die in order to make more room on the prolo. Ver Unkar listened sympathetically, his yellow countenance expressing a variety of emotions from anger to fierce joy as we described the bombing of the Zongainian encampment.

When Hanavan was through he asked us many questions bearing upon the size and strength of the First Fleet, its system of cruising and of attack and other points, all of which Hanavan answered in the fashion designed to give complete information on what the Zongainians did not do.

After the interview we were fed a meal more Earthly than we had tasted for many days. Then we were securely locked in a tiny windowless chamber by Ver Unkar.

As soon as our captor's retreating footsteps had died out, Professor Milroy spoke. "Now we *are* in for it. Everything we do gets us farther from any chance of return."

"Somehow," answered Hanavan musingly, "the soft words of these Kananese are more foreboding than the open threats of Zongainia."

Professor Milroy made an effort to cheer up. "At least we shall have an excellent opportunity to study a most interesting species at close range. And then too we shall eat—which is something. You know," he continued, warming to the discussion, "these people impressed me as being Mongolian—yellow skin, angular features. I would like to study one's skull.

"And did you hear them talking among themselves? Their language—it was quite unlike anything I have heard—like the chirping of birds. They seemed to talk on a regular musical scale. If we could only get a record—*my*! Perhaps it will all turn out well after all."

"They seem," said Hanavan, "to have some plan up their sleeves to finish the Zongain fleet. There is no reason to favor Zongainia, but I have a feeling it won't improve our chances to have these Kananese win. I wonder what they are going to do?"

He looked at Professor Milroy as though expecting an answer but the great savant was busy with a pencil, writing musical staves on the wall and singing scales softly to himself. Hanavan ceased his discussing and we proceeded to take inventory of the room.

After the passage of nearly two hours there was a change in the motion of the Kananese cruiser. It ceased its forward movement and dropped rapidly for a time. Then it decelerated; started again, moved horizontally until finally a sharp jolt told us that it had landed.

Outside our door were footsteps and voices, sounding like soft flutes running up and down arpeggios. We waited as patiently as possible until finally a hum sounded, the bolt was magnetically withdrawn and Ver Unkar entered. He was very businesslike and seemed worried.

"You will be conducted to the Intelligence Bureau—they will have complete charge from now on." He peered suddenly at Milroy's musical notations, his eyes opening wide in surprise. "You speak Kananese?" he demanded suspiciously.

"No." Milroy discovered that he did not know the Zongainian word for music, so he mumbled, "Mathematical game," and hurried to our escort in the hall.

AS WE were marched into the control room of the ship Lord Hanavan, attempting to take a cheerful attitude, commenced to whistle Tipperary when Professor Milroy seized him by the arm. "Don't do that!" he said.

"Why?"

"Don't ask me," responded the other in the same low tone, "but don't sing or whistle. Our lives may depend upon it!"

Led by four tall blue-robed Kananese sailors and followed by a similar number we descended from the prolo to the

secret citadel of the city. The craft lay with many others on the floor of an immense room through whose roof we had evidently come.

This chamber, which must have been fully two miles square and eight hundred feet in height, was filled with toiling Kananese. Here and there weird machines shot sparks in the air. However save for the voices there was none of the noise usually associated with a repair place.

But the voices! They were indescribable. It was like the tuning of a vast reed orchestra or the sound of wind in the pine forest. Nearby groups of workers could be distinctly heard "tooting" softly up and down the scale to each other. But the more distant voices merged together into a soft rhythmless music, rising and falling in cadences like the echoes heard in a seashell.

For several moments we three hesitated, spellbound, at the gangway, taking in the sight and sound until our guard, puzzled as to the wait, indicated by gestures for us to move on.

My recollections of the Kananese citadel are exceedingly vague. I remember that it impressed me as being huge, barbaric and very old. The rooms were built of stone instead of composition material —while the more modern electric wires were glued along the moulding as though placed much later.

The passages through which we were conducted to the Intelligence Bureau were filled with busy men and women. Everywhere the place buzzed with industry—each turn unfolded wider vistas of machine shops, forges and laboratories. The ancient halls fairly echoed with the piping of the laborers.

We did not have to wonder to what end all this activity was directed. Ver Unkar's words stood always before us— "The First Fleet . . . won't be boasted of much longer."

After a quarter-hour's walk our escort halted before an imposing black stone doorway. On each side stood guards, with whom the blue-robed ones parleyed. After a pause the door swung open and we were admitted. Within was a sort of anteroom, whose sole occupant was a short stocky man in a brilliant red cape. As we entered he swung about and scrutinized us closely. He seemed to start the least bit as his eyes rested upon us and then he spoke to the leader of the guards in Kananese.

Another wait—the man in the red robe strode impatiently up and down, paying utterly no attention to us. The eight guards leaned against the walls and chirped quietly among themselves. Finally a small door at the other end of the room opened and the yellow face of a Kananese protruded. Immediately "Red Robe" entered and the door closed.

Hanavan and I sat down on a black stone bench while Professor Milroy edged nearer the guard with his ears cocked. Twenty minutes passed and the door opened again to let out the man in the red robe. Keeping his back to the door he walked straight toward us. As he neared the bench he held out one hand in which I saw a folded piece of paper. Then he spoke in Zongainian.

"The examiner will see you at once, Zongain dogs. See that you pay him respect!" After which he swept out the door without another glance. But upon the polished floor at our feet lay a tightly folded bit of paper. Looking sideways at the guards I moved in front of Hanavan—hiding him for an instant—and then we all entered the door at the far end of the room.

The interview with the examiner was short and almost identical as to questions with that of Ver Unkar. Lord Hanavan did all the talking and managed it quite adroitly but for some reason or other the examiner did not take kindly to us. Dressed in a bizarre uniform and headdress he scowled more and more darkly, finally cut Hanavan off short.

"Don't go any further," he said, "you are probably lying anyway. So you want to be sent back to Zongainia to tell where our stronghold is? You will con-

sider yourselves fortunate to live—*if* you do. We take no chances on spies here."

He laid his fingers upon a little key, whereupon the door opened and we marched back into the arms of the guards. Ten minutes later we were listening to their fading footsteps through the iron doors of a small vaulted stone chamber.

XIV

THE instant they were gone Lord Hanavan dug in his pocket for the piece of paper the man of the red robe had dropped. On it was inscribed in angular Zongain characters:

Keep courage. Work is done here for Zongainia. Watch and listen.

We reread it several times and then Milroy commenced humming in a wandering tuneless way, his brow wrinkled with thought. Lord Hanavan carefully destroyed the note, making some remark about an uncomfortable place. I contented myself with examining the chamber minutely.

The room was constructed of square blocks of grayish stone and from the worn appearance of the floor had been in use many years. From the vaulted ceiling hung a single glow lamp whose wire entered by the ventilator. Dragging one of the benches under this I poked my arm into it as far as I could reach but encountered only the stone sides of a rectangular tunnel. A gentle draft of warmish air came steadily in.

After a bit we talked together of Kanan, of the Zongainian fleet, of the mysterious man and his note. Lord Hanavan became reminiscent and described his house in London, his club, an elephant hunt in Burma, the unwrapping of a Pharaoh's mummy. Professor Milroy wound his watch.

We wondered what Dr. Cummings, Pfeiffler and the little Englishman were doing. And we wondered who was going to win the war. An hour or more passed. Lord Hanavan, yawning, suggested we get some sleep when there was a gentle scratching at the door. We rose to our feet. By its very slowness the sound suggested stealth.

We moved so as to be behind the door when it opened. For twenty seconds the intermittent scraping continued and then the door swung in soundlessly. A head appeared—glanced at us—then as quietly the door was closed. In the center of the room, fingers on lips, stood the man in the red robe.

We waited, saying nothing. The other appeared to be listening and then, breaking into a smile, he spoke. "It was rather risky to come here so soon. But they are suspicious—they might move you any time before I could see you. It's necessary for you to know what to do."

Hanavan started to speak but the other cut him off. "I know what you want to say. I understand your curiosity—but time presses. You can tell about yourselves later. You are Zongainians—that is enough for me. Listen carefully."

He paused, stepped swiftly to the door, then returned to us. "The Kananese scientists have discovered a magnetic beam which has the effect of crystallizing any steel coming within its field. It can turn the most highly-tempered steel into a mass of brittle crystals in a second. Unknown to Zongainia the Dictator, Lao Refi, has had built a gigantic magnet projector.

"It is their plan as soon as everything is ready to send a part of their fleet to attack the First Fleet out in space—then to retreat to the citadel and drop to shelter behind a magnetic screen. The great beam will be turned on our pursuing ships, changing their girders and steel plates to crystals. The prolos will simply collapse.

"The mightiest guns, the thickest armor, will not save them from destruction. Not only will entire First Fleet be lost but El Zoia, who has come on board the flagship *Zongainian*, will be killed.

The projector is above the repair shops. It is—"

He stopped suddenly, opened the door a crack. He turned to the room for an instant, whispering, "Guards coming. The fleet must be warned. If I am captured —" He broke off and darted into the hall. With a soft click the metal door closed.

We had no time to cogitate upon this rather surprising interview for within less than thirty seconds five Kananese soldiers and an official-looking person with a black kimono-like costume entered.

"I have been sent by the examiner," said he sitting down upon the bench. "When our great Emperor, Lao Refi, crushes Zongainia he will open to your world the boon of Kananese civilization. No longer will your countries remain in the ignorance Zongainia has cast upon you.

"Your warring nations will be united under a Kanan government. We will manage all. Now the mighty Lao Refi does not wish to act without due consideration of his subjects, so I have come to learn of the customs of this little planet that our Governor may know whither he goes."

After this rather elegant but highly suspicious introduction he of the black robe rubbed his fingers together, glanced at the five guards lined before the door, then commenced, "You, Ver Hanavan, are from the Empire of England?"

"I am from England."

"It is the mightiest nation of Voya, is it not?"

"One of the mightiest."

"And you, I understand, are among its greatest?"

"No. My title is hereditary."

The other paused, regarding the ceiling. Then, "I would be interested in securing a cross-section of life in England for statistical purposes. What, may I ask, is your average day?"

Lord Hanavan looked annoyed. "I don't understand you," he replied.

"What do you do when you awaken?"

"I arise." The other glanced sharply at him.

"Don't be facetious. You dress and then order your palanquin."

WHICH word had to be defined. Hanavan explained carefully that palanquins were not used in England.

"I beg your pardon. What does one use in England?"

Hanavan paused a moment, seeking a translation, then replied with the name of the small Zongainian land vehicle—the *lokeg*. The man in the black robe raised his eyebrows as though noting something and then, visibly masking his thoughts, he proceeded. "Possibly before you order your *lokeg* you send messages across the city by runners to friends or business associates?"

This time our friend knew the word. "No, I would use a telephone."

Again the Kananese raised his eyebrows. His voice became softer and he leaned forward as he asked the next question.

"And if perchance the day is foggy your servants light candles?"

"No. They would turn on the electric lights. May I ask to what purpose is this interview?"

"Its purpose," murmured the other, "is almost fulfilled. "One more." He smiled at us in an oily way as though pleased with himself. "Should you wish to hurry across the waters to France you would bargain with some fisherman for your passage?"

"Your question is senseless," began Hanavan and then, at another steely glance from our inquisitor, he shrugged his shoulders. "I would buy a ticket on a—a motor-glider."

At this hastily compounded Zongainian phrase the Kananese abruptly stood up. "That is all," he snapped. "Come with me."

Vaguely alarmed over this odd visit we followed the guards down the great hall.

It was soon apparent where we were going for less than ten minutes later

we found ourselves face to face with the now glowering examiner. A few words were exchanged in Kananese between the black robe and the examiner and then the latter turned upon us.

"*Spies! Liars!* Zongainian *snakes!*" he spat. "You hope to fool us? Ver Iod was too clever for you. He has been to England only forty years ago. He questions you and suggests things that were done there two hundred of your years before but you, who think you are wary, reply with tales of what may not be in England for another hundred years. Know, careless fabricators, that there are no *lokegs* nor motor-gliders outside of Zongainia.

"Know you that the brave Iod saw naught but wagons pulled by animals, in England? Know you that the Voyians use mineral oil for lights and not electricity? If you are the best spies El Zoia can send, then Zongainia is verily a nation of imbeciles!"

We listened, dumfounded, to this tirade. It was soon clear what mistake had been made. The Kananese had endeavored to trap Hanavan into an ignorance of his supposed native land—but because we were forty years ahead of the England Ver Iod knew we were suspected of lying!

It was no use denying for the examiner's crowing might easily be turned into wrath and in the present circumstances that was not to be desired. Lord Hanavan shrugged his shoulders and replied that he depended upon the righteousness of our cause and the examiner's justice.

That person was somewhat mollified by this and informed us that the justice of the noble Lao Refi and his administrators was infallible. No more questions were asked and no information as to our disposal was volunteered. The three of us were marched out of the office without further ado.

We met the escort in the antechamber. They formed before and behind and out the door we went. In the hall the front half of the escort paused, their backs toward us, while the rear section was getting out of the door. At this instant I felt someone bump against me and a hard cold object was forced into my hand. Startled, I turned in time to see a man attired in a dull gray cape, vanish into a nearby doorway. Without looking at the strange package I jammed it into my tunic and came into step.

We were taken this time in a different direction and, to judge from the steady climb, somewhere near the roof. Finally we entered a corridor above which sounded the subdued hum of some sort of electrical machinery. Oddly one of the guards offered information. "Transformers for welding machines," he said. I did not believe him.

The march soon ended in a tiny metal-walled room with a thick iron door. The solid thud of its closing carried away any hope of escape. We were here for keeps.

BY THIS time we had become so used to mysterious happenings, or rather our senses were so blunted, that I showed Hanavan and Milroy my package with little excitement. It consisted of a curious-looking revolver-like instrument and the usual roll of paper. But this time the message proved to be of interest.

Zongainians: Whether you are El Zoia's agents or not I do not know but in your hands now rests our victory or ruin. You are in the strongest prison room in all Kanan. The walls and door are of tempered steel. Guards will come with food within one dek. Then is your chance.

Make your way to the projector as I direct. This weapon, if you know not its operation, will throw projectiles twenty to the second when the thumb button is pressed. I can do no more. My capture will occur within a quarter-day at the most. I give you my equipment and the blessings of Meta . . .

There followed some directions for finding the magnetic beam apparatus and a roughly drawn diagram. That was all. Hanavan examined the weapon for several minutes, then placed it on the bench. "It's worth the attempt," he remarked. "At least we will end up doing something."

At this Professor Milroy, who had been paying little attention during the last few minutes, came to life. "I don't think we shall die," he said. "Keep that thing concealed when the guards come. I do believe philology will have a practical use after all."

Our attempts to get some explanation were met with an assured if somewhat cryptic shake of the head. Finally we sat side by side on the bench while our colleague drew staves upon the wall and whistled and hummed intermittently.

For two hours we experienced one of those maddening waits which seem always to occur just before action. Milroy's whistling degenerated to the repetition of an unmelodious succession of notes while his face bore an ever-widening smile. Finally he spoke.

"Well, gentlemen, I have it. When our friends enter, if you will allow me to . . ."

There sounded a sharp click. We faced the door, watching. A pause and it swung open.

Two Kananese entered while three others, armed, waited outside. Evidently the examiner was taking no chances. Those who had come bore several covered jars, which they proceeded to deposit on the table without comment. This done both turned toward the door as Professor Milroy walked slowly toward them and commenced to whistle that inane melody.

Instantly the two stopped and wheeled about. Milroy continued to the end and, after a pause, repeated it with a variation. The effect upon the Kananese was amazing. Their repulsive features twisted by the strongest of emotions, all five crowded into our cell and surrounded Milroy. He, not in the least embarrassed, continued to whistle, speaking to us in English between breaths.

"Out the door . . . while they are under the effects . . . slam it . . . when I come . . ."

Realization of what was happening began to come as we followed his directions. The guards stood in a half-circle about him, staring with glassy eyes. "Mesmerized," murmured Hanavan, "by those tones."

There was little time for reflection, however, for hardly were we out of the room when Milroy joined us. He stopped his solo in mid-note and seized the door. "Quick—before they recover! *So!*"

The massive panel was closed and from within came the click of some hidden locking device. We were free—in the citadel of Kanan.

As we hastened down the hall I confess I was more interested in the way our friend had hypnotized the soldiers than in our predicament. Hanavan shared my curiosity though he glimpsed more of the truth than I but Professor Milroy gave but the briefest of explanations.

Between hurried steps he told us, "Musical s c a l e s and progressions seemed to be the basis of their language and from the fact that a solitary person would make these sounds I inferred that their entire temperament was based upon tonal sensations. In a word that their thoughts were made up of sounds instead of the pictures that cross our minds. And that emotions are to them simply tonal progressions. Did you notice how the examiner chirruped when he was angry.

"So I concluded that any desired emotional state could be induced merely by the right tune as it were. The problem became one of determining that tune. Fortunately I had plenty of time to listen and observe—the rest was only a matter of working out their psychological scale. The progression I used upon those guards consisted of alternate

dominant sevenths and parallel minors and induced the condition of surprised immobility, a state very convenient to us."

"That's your masterpiece, Sheridan," exclaimed Hanavan, "the last word in interpreting foreign languages. It's too bad the Royal Society cannot hear about it."

Suddenly Professor Milroy halted, finger on lips. We were at the end of the straight corridor. Ahead it turned sharply to the right and ended within fifty feet at a tall metal door.

Beyond it a confused patter of feet and a distant piping of voices was audible. Evidently beyond the panel lay one of the busy "streets" of the citadel. After vainly trying to locate a keyhole through which to peep, we held a council of war.

XV

ACCORDING to the chart, which we now studied closely for the first time, it was necessary to traverse that passage for nearly five hundred feet. Our course, marked by a red line, now branched left through a series of chambers, each marked with a small red triangle surrounded by three dots—the Zongain symbol for danger.

At the end of the third chamber was the representation of a spiral staircase and the word *unalt*—up. Here was another of those little triangles—what they meant we could not guess but that caution was intended we felt no doubt. Beyond the stair was a short passage marked, *Pass—contact 7-29, 14-12, 2-18,* and above that a circle with the word *magnet.*

"The directions seem complete enough," I ventured, "but how does he expect us to pass this hall?"

"Shoot our way through," replied Hanavan. "Or perhaps overpower and change clothes with three Kananese. Excepting that it is rather doubtful if fate will present us with three alone. Too bad we locked those guards in."

Suddenly Milroy sprang up. "I *have* it!" he cried delightedly. "Why use force when there is an easier way? Don't forget their Achilles' heel. All that is necessary is to induce a state of catalepsy and Kanan is ours!"

"By Jove! Mass hypnotism!"

"Exactly! I have been thinking that the effect of a single note might be much increased if we could contrive to sound a chord."

An hour and a half later, after about the oddest preparation for battle I can recall, we opened the metal door to the hall. For an hour Professor Milroy had covered the walls with musical notations, had whistled and hummed and perspired. Finally he wrote on three staves an eight-measure harmonization and we, like a barbershop trio, put our heads together and whistled until each part was memorized.

"We've got them now." Milroy chuckled in triumph as the door opened. However, Hanavan kept the gun ready.

The view that met our eyes as we stepped out was a familiar one. The passage, some eighty feet wide and half as high, was crowded with hurrying Kananese. Their ceaseless piping ran like the gurgling of a brook. At first we stood unnoticed on the threshold of the corridor and then a man stopped, peered at us intently and began to back away, his voice raised in a quavering siren-like call.

Instantly all other sounds stopped. The rolling current of humanity abruptly halted and a thousand faces turned toward the cause of the disturbance. There was a moment of utter silence while their eyes sought us out. Now was the chance!

Like the leader of a church choir Milroy waved his hand—one, two—and we began. During the first measure there was no response and an odd tingling sensation went wandering down my vertebrae. Forming my lips with difficulty I continued. Another measure passed—I saw that the expression of those nearest the door had changed.

Their eyes seemed glazed. One rocked slightly.

On we went into the first variation, then got results. Someone in the front row sagged limply to the floor. Another raised hands to face, staggered back a yard and toppled. At once they began to fall everywhere. Whole rows collapsed as if a machine-gun had been loosed upon them. Before we had half finished our piece the entire audience was unconscious. With a sign Professor Milroy stopped us.

"Old sayings illustrated," he remarked, stepping carefully over the recumbent bodies. "Behold the audience after the musicale."

As may be imagined it did not take us long to cover the distance to the side turn. Around the next bend could be heard a mounting volume of reedy voices raised in excitement as the ceaseless traffic came upon the vanguard of the unconscious. With a fearful backward glance we hastened into the first of the small chambers marked with the danger sign.

Hanavan ahead, pushed open the narrow door and stopped. He whistled in surprise and entered. "My word! Look at *this*!"

We crowded after him and then halted too. Before us was what was evidently a guardroom for there were stacks of weapons against the wall—but the guard lay, every man jack of them, in sweet repose upon the floor!

Professor Milroy was gleeful. "Danger number one disposed of, eh? If we only had a public address system the war would be won!"

Stopping only to pick up an assortment of small weapons we hastened on toward the second room from which we could already hear a powerful hum. It was separated from the first by a similar door but the instant we opened it we realized that trouble was at hand.

Pausing together at the entrance we peered into a long chamber filled from end to end with electrical apparatus. Glittering coils of a greenish metal, great cubes of crystal and sheet silver, a maze of switches, electrodes and circuit-breakers turned the place to a veritable Steinmetz nightmare.

From the farther end came the flickering blue glow of a mercury-vapor rectifier while seated beside it was an elderly Kananese. The hum of the transformers had evidently drowned out our psychological trio for the instant we stepped into the room the old man was on his feet and reaching for a switch.

"Ready?" queried Milroy. He raised one hand to start the music when the Kananese acted.

DOWN came the big switch and at the same instant, with a crackling roar, a curtain of flaming electricity descended before us. Shrinking back against the wall we soon found the origin of this display. Along floor and ceiling were rows of ball electrodes from which leaped hundreds of arcs, interlacing, joining and breaking until they formed a lacy sheet of electricity completely across the room.

Even to approach it meant sure death, and, we suddenly realized, the continual roar prevented the thin sound of our whistle from being audible to the little man beyond. For a moment we seemed defeated. We could not use the gun for even if the guardian were killed his fiery curtain would remain.

Retiring to the far end of the room we waited for the Kananese to make the next move. If we had expected him to call for help we were mistaken for, after making some adjustments upon the switchboard, he strolled in a leisurely manner up to the crackling wall between us.

Here he made a long and careful inspection, seemed to nod his head, returned to his seat by the transformers. He touched the lever and from behind us sound a gentle thump. The entrance door had dropped into place. It was not necessary to try it to know that we were locked in.

Hanavan prowled about the end of the room for a moment, poking at dials and levers, in the hope of finding a duplicate of the switch for the arc. No luck.

"It looks as if the game is finished this time. We can't get our voices through without an amplifier. The crowd will be at our backs within a few minutes and in a half hour the First Fleet will be in range of the projectors."

"We might try to sing very loudly," suggested Milroy, "one can hear the whine of the transformers plainly through the screen."

Hanavan shook his head. "No," he said, "they are much louder." Absently he twirled a dial. Immediately the tone of the transformer changed pitch, rising to a high whistle like a siren. Startled, he spun the little wheel in another direction and was rewarded by a prolonged howl from the apparatus across the room.

"Frequency control," he muttered and was about to leave it when Professor Milroy sprang forward.

"Frequency control to them but our salvation!

"What do you mean?"

"Controlled pitch! Play our notes on the transformer! As effective as whistling! Give me five minutes and this barrier will be gone!

It was considerably less than five minutes when Professor Milroy was ready. Paying no attention to the clamor of voices from the guardroom behind us he seized the dial and, after a few preliminary howls from the coil, he commenced to broadcast.

The little old man at once began to take interest. I watched—my heart in my mouth—waiting for him to collapse. But he did no such thing. Instead he stared at us for a moment, nodded with vigor and, reaching up, shoved the big switch back into place. Instantly the electric wall vanished—our path was clear to the end of the room. Making sure that his hand was far enough from the switch Hanavan and I hastened across the chamber to where the Kananese was smiling at us in the friendliest manner.

"Grab him," commanded Milroy. We did so, encountering no resistance. Milroy at once left his dial and hastened across the danger line. He had hardly reached us when the whole demeanor of the Kananese changed. The smile on his yellow face turned to a snarl and he commenced to struggle.

Our colleague regarded him a second. Then, pursing his lips, he whistled softly. The prisoner relaxed, gave a soft squeak and tumbled from our grasp onto the floor. "Come," said Milroy, "time presses."

At the farther wall of the instrument room was a narrow portal beyond which lay the spiral staircase. Leaving the unconscious guardian heaped in his chair we began to climb and Milroy explained.

"It would have been of no use to hypnotize him, so I tried another tune. It caused a feeling of extreme affection for the universe in general and us in particular. A sort of love song, as it were. Of course, the effect ceased with the music, hence the lullaby."

From above came a vibrant hum, its intensity increasing with each turn of the spiral. It suddenly occurred to me that the sound came from the magnet projector, that the machine was already in operation against the fleet. We increased our pace.

We had ascended some five hundred steps when the top appeared. It consisted of a small chamber less than six feet in diameter, roofed over with a spherical dome. On one side was a two-foot panel of blue stone in which were imbedded a hundred or more copper disks. Otherwise the walls were of seamless metal. We stood for a moment, staring blankly, when Hanavan, the sheet of paper in his hand, peered more closely at the metal buttons.

"There is a character cut on each one," he cried. He looked at the paper, speaking his thoughts aloud. "Pass: con-

tact: seven-twenty-nine: f o u r t e e n-twelve: two-eighteen . . ."

Now I noticed, fastened to the wall above the plate, two metal spikes connected by three feet of shining copper cable. For some reason in this emergency our minds worked more rapidly. Hanavan seized the pins and cable while Professor Milroy, pencil in hand, studied the panel. In a moment he checked two of the disks.

After a pause he found another pair and marked them and almost immediately located the last two numbers given in our directions. Hanavan, following them up, pressed his two spikes firmly against the contacts. There was a snap of sparks and overhead I heard a click. Next, he connected the second pair of disks with the same result. Then the last two. The steel points were jammed into the copper.

We waited a second, then half of the circular wall commenced to rise silently. Through the opening crack beneath came a flood of bluish light while the hum of electric machinery became overpowering. Moment by moment I caught a widening glimpse of glittering steel, of dials and switches, of coils and insulators.

NOW the door was fully open. Gripping the little Zongainian gun Lord Hanavan led the way into the chamber beyond.

We entered a room more than two hundred feet square. Its walls were composed of vertical columns and plates and a hundred feet overhead was a cylindrical roof resting on wheels. We gave but the briefest of glances to the room for our attention was immediately focused upon the towering mechanism that occupied its center.

That we were looking upon the great magnetic projector itself, we had no doubt. Mounted upon a massive crystalline stand it resembled nothing more than a huge Earthly telescope save that the core was built of thousands of laminated iron plates and coils of wire.

Standing before the switchboard at the base of the instrument were a dozen men with their backs to us. Even as we looked one of these pulled a switch. A hollow rumble sounded above. We glanced up to see the whole ceiling sliding sideways.

Beyond was revealed the dull gray sky of Kanan and in it were prolos—hundreds of them—dropping slowly past us. Far above, passing out of our field of view, was a gigantic armada of spaceships — thousands upon thousands, sweeping magnificently down upon the last stronghold of Kanan.

Involuntarily we thrilled at the sight and then our attention was attracted to the group at the switchboard. One was talking in Zongainian.

"Will they not be surprised—what's left of them!" He laughed. "And their fool spies! I would that they might be standing here now so they could see what happens to those who oppose . . ." The Kananese had turned around and now he was facing us, his eyes wide in amazement and fright, his yellow face slowly whitening.

The others swung about at his silence. Instantly one made a motion with his hands. There was a sharp crack and a dim vision of a bluish spark. Lord Hanavan, in the lead, gave a sharp cry and staggered back raising his gun at the same time. Again the Kananese fired and then Hanavan found the trigger button. There was a crackling rattle and the group of Kananese seemed literally to explode before him.

In a cloud of smoke and flying bits of metal they ran a few steps only to fall in that merciless hail. Explosive bullets —the Zongainian gun fired explosive bullets! Suddenly the barrage stopped. Hanavan was leaning against the nearer wall, his face white and drawn. He held out the gun.

"Take it! Make them . . . turn magnet . . . upon Kananese." He closed his eyes as I took the weapon.

But now our attention was focused

upon two who had escaped the general slaughter. These poor cowering wretches were on their hands and knees, wailing what were evidently pleas for mercy in their own tongue. Professor Milroy, without pausing, whistled a few notes and pointed through the roof to the Kananese battle prolos now directly overhead. I backed him up with a suggestive shake of the gun.

I do not know which was the more potent but under the combined influence of the gun and Milroy's hypnotism the Kananese returned to the control and focused their dreadful telescope until it was bearing squarely on the center of the nearer fleet.

Milroy, inflexible, gave the command. The power was turned on. A score of huge tubes flickered with a blue radiance, white six-foot coils on the magnet glowed red. A strange thrill passed across my body—the magnetism, or was it but a nervous state?

Tensely we waited, eyes glued upon the gray fish-shapes above. A minute passed and then before our eyes the craft commenced to crumble. It was weird, the slowness with which those giant living monsters turned to shapeless clouds of wreckage. One by one they changed, lost form, merged into one mighty rain.

Girders, armor plates, guns and tiny specks that might have been men fluttered endlessly down to the roofs. Minute followed long minute until we discovered that the sky was empty again save for the distant crescent of the Zongainians. We blinked, unable to realize that the Kananese Imperial Fleet was gone—wiped out in a dozen minutes by their own weapon.

For hours it seemed I remained staring through the roof of the empty gray sky and the swarm of the First Fleet, moving with infinite slowness toward the citadel. I do not know how long I would have remained thus had not I caught the image of a shadow moving swiftly in front of a dully-radiating coil. The next instant I looked down and my eye met that of one of the Kananese, who was glaring with deadly malevolence at me and slowly raising a slender metal rod.

Milroy must have seen him at the same instant for he gave a sharp cry of warning. Automatically my thumb found the button of the barrel of the gun. The Kananese threw himself forward and up and vanished into a haze of smoke. Now I saw the other man running, crouched low, toward the instrument panel. I started to shift my aim when, with a last great leap, he reached his objective.

The next second a glare like a lightning bolt flashed out. Instantaneously I saw the Kananese silhouetted against the coils, one hand grasping a shattered tube, his body completely encased in a gauze of sparks. Then darkness, punctured by leaping blue flames—a crashing roar of loosed fury—a dim vision of arcs playing up and down the length of the magnet. And then with a splintering sound it toppled ponderously, majestically.

Shattering girders and lesser pieces of apparatus it fell, crushing into ruin half the chamber and bringing down with it the hopes of Imperial Kanan.

XVI

FOR a moment we stood motionless in semi-darkness and then, without a sound, Lord Hanavan collapsed to the floor. We ran to his side and from the still open doors came voices, running footsteps. The stairway—we had forgotten the stairway!

Professor Milroy, with rare presence of mind, seized the gun and ran to the door. After hauling Hanavan out of the zone of fire I returned to his side. As I arrived the voices rose to a sharp crescendo. Flinging the door wide Professor Milroy turned his weapon downward.

From below there sounded a sharp strangled cry, followed by a prolonged and horrible screaming. His face ashen

and his body rigid, Milroy held the weapon until the metal steps collapsed for thirty feet. Then he snapped it off and closed the door. He gestured toward Hanavan.

"Dead?"

Without waiting for an answer he listened for a heartbeat. He rose in relief. "Still going—no sign of a wound." He shook his head as though trying to clear his mind, then walked unsteadily to a metal bench, where he slumped down.

For seconds I remained standing at Hanavan's side, attempting to collect myself, before I remembered the fleet. Half-fearing to find it gone I looked up through the open roof. It was still there. So near that only its center could be seen it drove downward silently, ominously. Rank after rank of thousand-foot battle prolos—endless columns of smaller cruisers—myriads of gnat-sized bomb-droppers, all drawing together upon the exposed entrance to the Kananese workships and citadel.

Even now the magnetic ray should have been at work destroying the armor and steel beams of those ships. Somewhere the Kananese commanders, the examiner and the Emperor were waiting and wondering at the silence, perhaps not knowing yet what had happened.

Suddenly I realized what it meant. Zongainia would be victorious—we would be rescued—we could return . . .

All thoughts were stopped at this instant for, with a blaze of colored lighting and a shattering blast of thunder, the first rank of the attackers opened fire. Professor Milroy leaped up at the sound. Without withdrawing my gaze from the roof I noted a light blinking rapidly upon a side switchboard. That was the Kanan military staff calling for help.

Now the very floor was shaking with the impact of shells and bombs. The Zongain fleet had changed directions. It seemed to be circling and dropping gradually lower. Green bursts of flame in the sky showed that Kanan could still retaliate. But as the minutes passed these became rarer and rarer.

Ship after ship passed over. Now they were scarcely a mile away. A bursting shell threw a shower of cement and glass through the roof. As we scurried for the alcove where Hanavan lay Milroy shouted in my ear, "One of those is coming here any minute. If we don't leave soon . . ."

I gestured toward the unconscious archaeologist but Milroy was busy across the room with a little oval door. He shouted something over his shoulder, inaudible in the din, and the door opened, revealing a tiny round chamber. Returning to me, he cried, "Elevator—to the roof!" At my look of dismay he returned. "Stairs gone. Must signal—only way. Help me with Hanavan!"

Another avalanche of debris decided us. Half-carrying, half-dragging our friend over the crumpled remains of the projector, we managed to enter the elevator where Milroy by some marvelous intuition pressed the right starting button. The door clicked shut, bringing the thunder of the battle to an abrupt stop, and the car rose swiftly. Milroy sat heavily on the floor and held his head in his hands. His whole body, physically exhausted, was giving up in spite of his heroic will.

"We have about one chance in ten that they will see or recognize a signal," he murmured, "but we . . ." With a jolt the elevator halted, another door opened and the tumult of the attack drowned further human words.

We were on the roof in the shadow of one of the steel towers, overlooking the entrance to the Kananese stronghold. But what a change had taken place! The entire roof had fallen in. The camouflage was off and a half dozen Kananese prolos, cornered in their own pit, were fighting their last battle.

The First Fleet had gathered in a circle about the structure, where it hovered motionless. From each prolo poured a veritable stream of projectiles

under whose relentless impact the structures of the city crumbled like eggshells. Flames licked the edge amid billowing masses of smoke, while ever and anon a whole building quivered and uprose with some internal blast.

The workshop floor where we had landed was buried many feet deep by the wrecked roof and the riddled hulks of prolos. There seemed to be hardly a dozen Kananese ships left and some of these lay disabled on the floor, still firing. Tighter yet grew the ring of the First Fleet. That the end was near was apparent.

I became aware that Milroy was shouting inaudibly at me. I took a step back when, without warning, the roar ceased.

A crowd of echoes yelped for a moment, then silence—utterly deafening by its very intensity—descended. A line of red flames flickered quietly across the pit. Some masonry fell with a light clatter. I looked at Milroy. "What is it?" He did not reply. Again I turned my eyes upon the pit.

THE Kananese prolos were rising silently, each toward a Zongainian craft. Dimly I made out lines of minute things that were men filing out of the buildings into the open. For a moment smoke blotted out the scene. Milroy's voice, small and distant and bell-like, broke the stillness.

"They are surrendering. It is done!" Abruptly he sat down, tried to speak, then crumpled in a heap on the steps.

Suddenly I realized that we were invisible here, that we must signal. I shouted and waved my arms. Then, seeing the futility of such signs, seized the gun and turned it upon the pit. Again and again it crackled until I saw a prolo turn toward us. In a moment it was overhead.

Faces looked out, not the sickly yellow masks of the Kananese but the round tanned features of Zongainians. I attempted to shout, to point, but the effort was too much. The universe leaped in circles about me and then blackened. I felt myself falling, arms about me, voices, movement, darkness.

"Meta ela Meta! In this word there is no defeat! *Meta ela Meta!"* The phrase, uttered in Zongainian by a resonant bass voice, heralded my return to the land of the living. To my opened eyes was disclosed a low steel room, its floor covered with pneumatic beds and prone men. A faint hum came from somewhere—engines! I raised my head to look for the speaker when the voice came again from a small black box at one end of the room.

"Word has just been received from the flagship that Lao Refi, Emperor of all Kanan, has surrendered personally and is now aboard the *Zongainian.*"

At this there arose a babel of conversation from the other occupants of the room. Now I noticed that all wore the molded bandages here and there on arms and legs. Another glance about the room convinced me. The steel walls and floor, the faint vibration of electrical machinery, all pointed to one conclusion. We were in the hospital room of a Zongainian battleship.

The patient on my left turned on his side and said to me, "He thought he was going to retire on a pension after making a mess of the job of Emperor but El Zoia had him by the neck. When the people and the army found they had to choose between losing an emperor or having the city bombed they rendered him up in a hurry. *Ha!* But this is the day for El Zoia."

Seizing upon the first thing that came into my mind I asked, "What prolo is this?"

"Brought in unconscious? This is the *Zongainian.*"

"Where are we?"

"I can't tell within a half light year but we are somewhere on the route to Zongainia."

My heart gave a sudden leap. Zongainia—*Earth!* We were going home!

I lay back on the pneumatic bed and listened to the voice from the loudspeak-

er. It evidently came from Zongainia, broadcast across the universe by a ray a thousand times faster than light. As I listened a sense of unutterable repose and comfort came over me. The voice continued.

". . . the country is waiting only for the coming of the flagship *Zongainian* and the fleet to celebrate the victory. The people are already swarming about the government Ethero station for a first television glimpse of their beloved El Zoia. Ver Menisto has crowned his career as statesman and scientist by a military achievement of the highest order."

"Is he on the ship?" I asked. "El Zoia, I mean."

"Yes."

I lay back again. I wondered why no one approached my bed, why this wounded soldier spoke as though I were but a comrade, why we had not been sent to the Commander—and then suddenly the truth dawned upon me. Picked up in the turmoil after the fight, dressed in Zongainian garb, tanned by the sun of Egypt to a betel brown, we had been placed unrecognized among the thousands of wounded to be returned home. My breath came faster as new hope grew within me. Glancing about I soon made out the forms of Professor Milroy and Lord Hanavan. Turning again to the man beside me I attempted to make conversation.

"Which prolo were you on," I asked.

"The *Voya V*," he replied. "I was carrying ammunition when we got it—tore the whole side out of the old *Voya*. I thought we were all through but the city roof broke our fall. I was conscious all the time. One of the first landing parties from the *Ahtz*, I believe, picked us up."

He scratched his bandage and then looked at his wounds through its transparency. "Those landing expeditions were all failures," he remarked. "Before we went down, I saw the *Muniun-One hundred and sixteen* drop three thousand in a street. I don't believe half of them ever returned."

He regarded the ceiling meditatively but at that instant a number of men and women, evidently doctors, entered. I lay back on my couch again, wondering if I would be recognized. Shortly afterward, I fell asleep.

More than a week, measured by Earth time, passed before Hanavan, Milroy and I could be called well. Our illness was nervous rather than physical and such I gathered could not be treated so speedily. However, we were given every comfort and recuperation came rapidly. Toward the end of the week the ward was almost empty of patients and we had all the privacy we could desire for planning.

BOTH Lord Hanavan and his friend had had the same idea as I. If we could mix with the 80,000-odd members of the crew there was a possibility—the barest possibility—that we might make our way north out of the country to the Sobat and thence on a raft to civilization. If Cummings and Pfeiffler and the Englishman were prisoners on board we might contrive to free them too.

Otherwise all we could do would be to bring back a rescue party from England—an army division, if necessary—and force the Zongainian dictator to give them up. Oddly we still thought of Zongainia as a beautiful but half-barbaric country even after what we had seen of its strength. Lord Hanavan, who had once been a colonel in India, never thought of the military strength of Zongainia in terms of a prolo fleet over London!

After the passage of a week more or less we were pronounced ready for duty. Prepared beforehand we duly told that we were members of the landing party from the *Muniun-116*, lost on the roofs. After being registered under names made up beforehand we were assigned places as inductor-men in the engine room and as far as the Zonganian staff was concerned we were cared for.

Owing to our position in the center of

the prolo we did not for a long time comprehend just how huge the *Zongainian* was. Naturally we avoided asking suspicious questions but while off duty Professor Milroy, rummaging in the engineer's office, found some rather astounding data.

The *Zongainian* had a beam of eight hundred feet, a length of 5170 feet and weighed on Earth some seven million five hundred thousand tons. Its normal crew was 78,000, it had 800 30-inch rapid-fire guns and 4,000 five-inch guns. Its armor plating was four feet thick and its engines developed a horsepower of three hundred millions!

Our job during the fifteen or more weeks of the return voyage was that of caring for two of the immense induction coils that supplied high-tension current to some motor. The coils were more than thirty feet in length and by their proximity to our sleeping quarters kept us continually charged with electricity. Within the first five minutes Hanavan's watch became magnetized and stopped. Milroy's long fine hair stood out like an aura about him, making a really excellent electroscope.

Our quarters consisted of three trough-like berths, one above the other, in what might be termed the starboard dormitory. Five thousand men slept there, occupying the berths in rotation, and it was necessary to be out immediately the first gong sounded to make room for another finishing his six-hour shift. Food was rationed out at the beginning of each shift and we ate on duty whenever we were hungry, consuming both the gelatine and the package in which it was issued.

Upon several occasions we caught glimpses into the main power-room of the craft but a limited scientific knowledge prevented any comprehension. The place was vast—hundreds of feet square and high, filled with Titanic electrical apparatus—coils, condensers, fifty-foot vacuum tubes whose glow cast weird reflections on the ceiling.

As nearly as we could understand, the purpose of all this apparatus was to generate electric current of a certain frequency and wave form which, when sent through ranks of mineral crystals, caused electromagnetic impulses that created a sort of interference phenomenon with gravity.

We ate and slept within a five-hundred-foot area and not once during the whole trip did we catch a glimpse outside.

All things must end, however—even this interminable voyage. Day by day the bulletin board in our sleeping room announced a smaller velocity, a shorter distance to cover before we should reach Earth. Our fellow-workers talked now of the coming landing, of friends, parents, wives or husbands, of homes. We three in our turn became animated by a great excitement, which leaped higher as the news came that we were inside Neptune's orbit—*A. N. 8* it was termed on the bulletin board, after the Sun's astronomical name, *Alf Nueri*.

Uranus' and Saturn's paths were crossed during the next day without sighting them. Jupiter's orbit was passed at a distance of two hundred million miles from that planet. Then we decelerated five days among the asteroids. At Mars, fifty million miles from Earth, an escort of some thousands of prolos, the Asteroid Patrol, met the First Fleet. In common with a number of other engineers we went to the window for our first view of the Sun.

It was very disappointing. Old Sol, dull in comparison with the other giants of the universe, glowed beneath. Over to one side a tiny ruddy full moon gleamed—Mars. And far below a silvery-blue star of intense brilliancy, attended by a dimmer companion, lay Earth. We looked at it, too filled with emotion to speak. About us the crew shouted to each other, danced and laughed with joy.

After we had returned to the sleeping room Lord Hanavan drew Milroy and myself toward him. "Landing in Zongainia," he said, in a low voice, "won't

automatically mean walking up the steps of the Royal Society. Once we leave the ship we will be on our own in a city and country almost as unknown as Kanan. One slip may mean capture.

"That everyone will be rejoicing will aid us somewhat but we must be careful. Our immediate course can be decided by where we land. If it is in the city of Imperium it will be very difficult. If we descend in the northern city—Andorks—we will have only a short distance to travel to the valley—the basalt cliffs—and the Nile."

Others of the crew entered the room at this instant and all conversation ceased.

It was now only a matter of hours until we should land. Weight increased abruptly as deceleration was raised. Up the great hallway toward the control sounded voices, running steps. Orders to stand by our coils and switchboards came from above. Vague shiftings and movements betrayed the maneuvering of the prolo as it approached its landing place. We waited.

Then deceleration increased once more. A faint whistling echoed from outside—*atmosphere!* Then our motion seemed to slacken. We moved forward, stopped again. A long pause ensued and then a sharp tremor, a metallic thump. Orders appeared on the ground-glass signal screen—*Shut down power.*

The hum of the generators slowed. Like the descending whine of a score of sirens the massive motors were turned off. Voices sounded up the hall. The sharp hiss of air and breath faint, but unmistakable, came down to the engine-room. We sniffed and then laughed idiotically at each other. It was the fresh tangy breeze from the lake! We had landed—the voyage was over.

XVII

AND now I come to what is one of the strangest parts of our whole adventure. A half-hour after the *Zongainian* had docked we, with about four thousand more refugees from other ships, were disembarked and told to report to the Prolo Shops at Andorks next day.

We marched down an enclosed gangway and onto a balcony. We paused for a moment, confused, and then remembrance flashed upon us. We were overlooking the Imperium landingway from the very walk where a half-year ago we had been led to our prison ship. But what a difference there was now!

Then we had been helpless prisoners, confused, comprehending nothing of the language, not knowing whether we would see another day dawn. Now we stood attired in the uniform of the Zongainian Navy, masters of the tongue and, as it turned out, heroes in the eyes of everyone.

With a crowd of some two hundred others we marched down the hall and into the main lobby of the great interstellar depot. In this immense room, which measured more than seven hundred feet square, milled a vast crowd of people, colorful in their light costumes—cheering wildly and throwing Zongainian confetti in the form of iridescent bubbles of some sort upon the column of returning soldiers.

Through a lane in the crowd we went and so out upon the street. Here also were uncounted thousands of people, extending between the towering buildings as far as the eye could reach. Dazzling beams of colored lights flickered back and forth from spotlights on the balconies and music, strange, throbbingly triumphant and beautiful, floated down from nowhere.

From the steps of the depot we caught a momentary view of the whole spectacle and then, still with the main body of soldiers, we descended and were swallowed up in the mob. It was not difficult to make our way down the street for, unlike European crowds, the Zongainians were courteous in their excitement.

One by one our comrades dropped off, going to their respective homes before reporting at Andorks, until finally we three found ourselves, late in the eve-

ning, on the outskirts of the zone of celebration. About us the buildings were lower and the glass ceiling had ended some blocks back. Overhead it was cloudy. The colored lights of the city were reflected back like an aurora.

Once we caught a glimpse down a long avenue of the White Tower, rising to an incredible height and bathed in rainbow hues. And again in the midst of a turmoil of music from a square we were startled by a familiar piece of earthly music—Liszt's *Second Hungarian Rhapsody*.

There were fewer people here and they seemed intent upon getting to the central area as soon as possible. Stepping into the arcade of a building we took a moment to discuss further movements. Now that we were actually back all our former assurance departed. The city of Imperium, which had seemed so unimportant when the Universe lay between us and the world, now assumed vast proportions.

We suddenly realized that we had a hundred-mile hike ahead of us before we could even leave the inhabited area of the country. And without sufficient clothing or shoes, with only the little Zongainian rapid-fire gun, which was hardly suitable for game, we would have to make a four-thousand-mile journey down the Nile.

"We might go on to Andorks with the rest," suggested Professor Milroy, "and have a seventy-mile start."

Unfortunately we had no idea as to the point of embarkation. Indeed I doubt if we could have found our way back to the landingway. We dared not ask questions and feared that an attempt to walk the streets all night might result in arrest—or whatever was done to vagrants in Zongainia. Rapidly now courage oozed out. We were as lost in Imperium as a Hottentot would be alone in New York City.

As conversation lagged I noticed a man standing at the sidewalk railing which overlooked the street proper regarding us steadily. I nudged Hanavan and indicated the watcher. For a moment we looked in silence and then Hanavan murmured, "We must not let him know we see him. We may be suspected—we may be breaking some law."

He stopped abruptly and I turned about. The man had left the railing and was walking toward us in a leisurely manner. We crouched back into the doorway, horrified. My heart leaped. I looked up and down the street but escape was impossible. The other doubtless had weapons.

Hanavan whispered, "Bluff it out. We have a chance yet." I essayed to brace myself with sorry results. Luckily the shadows hid our faces.

In a moment the strange Zongainian was at our side. "From the fleet?" he asked pleasantly.

Hanavan nodded adding, "The *Zongainian.*"

The other was agreeably surprised. "Has anyone invited you for the evening?" he inquired.

Hanavan paused, uncertain as to the answer. Finally he said, "No."

"Well, that will be fine," replied the other, apparently well pleased. "With twenty million families looking for one of you returning heroes as a guest at the celebration you are rather at a premium." He paused. "I have apartments in the Sixteen Meriot Building. My private car is on the street below. If you will..."

We would. I was cold and damp with perspiration from reaction as we descended to the street and climbed into the orange-colored vehicle. Without a sound the stranger started his machine and we were soon moving at a rapid pace toward the White Zongainian Tower.

As soon as we were under way the driver turned to us. "My name is Ver Anul . . ."

WE HASTENED to introduce ourselves by the names we had used on board the Zongainian. Ver Anul then proceeded to ask many questions about the war, about the siege of Kanan and

the ease with which it had fallen.

"It is a matter of much wonder to the government, I hear, that the Emperor allowed—literally invited—the First Fleet to defeat him. There have been reports that some strange accident overtook the greater part of their fleet. However, a commission has been appointed to investigate the matter. Their findings may be announced tonight."

A pause followed and then Hanavan very carefully began asking about the celebration. Ver Anul, however, did not appear surprised and talked all the rest of the way. We gathered that there would be a ceremony in the largest auditorium in the city which, broadcast through telephone wires, would reach everyone in the country as well as the three hundred thousand in the hall.

Ship commanders and soldiers were to receive decorations, the terms of the treaty were to be read and Ver Menisto, the all-conquering El Zoia, was to make a speech. Before the ceremony we were to have lunch in Ver Anul's apartment. Further explanations were cut off by the arrival at the apartment building.

Ver Anul shared his suite with another man and three women, all unattached business people who lived together like a happy family sharing parlor, bedroom and bath. Each had a soldier guest for the evening, who kept us in the background by their conversation about the war.

Dinner, the usual jellies and thin wafers and sour liquid, was soon over. Ver Anul, with profuse politeness, escorted us to a chute and handed us the little metal guides. It was no time to back out so, with averted faces, we dropped off one by one.

The chute ended in a sort of station, where one could enter the cars of the pneumatic subway. Our host indicated a car and entered after us. Twenty or more people were already there, reclining on tiers of bunks that made the place suggestive of an American Pullman car.

We were in the car scarcely five minutes when it halted and everybody hastened out. We found ourselves in a vast square under the open sky, facing the façade of a great building. Glowing windows three hundred feet high stretched for two miles on either side and a glimpse of moonlit water beyond showed that we were near the lake.

The square was covered by an immense crowd, which must have numbered hundreds of thousands, but Ver Anul knew his way for he pushed through to a small door near the main entrance. Showing a round ticket of some kind to the doorman he led us in.

"Reserved," he explained. "In the first row of seats."

"He must be important," whispered Professor Milroy in English. "I wonder why he picked us up?" Hanavan shrugged.

We then passed through a short corridor into the auditorium. I was prepared for something huge but the size of this room was simply overwhelming. Its ceiling, hung with heavy curtains, was more than six hundred feet overhead while the floor extended over two miles back. Seated upon the floor and the mile-wide balcony was the audience —three hundred thousand people.

At the nearer end of the hall was a large platform, occupied by a number of seats and by a device we surmised to be amplifying apparatus for the speakers. Directly behind this hung a white screen almost four hundred feet square whose purpose we could not guess.

Ver Anul went at once to a vacant bench, where we all sat. He spoke to a number of other men and women nearby and they, I noticed, glanced at us with interest.

The first few rows of seats in front were separated from the rest by a light fence. In this space were gathered a thousand or more people, all evidently officials of the government or officers of the fleet. Several hundred other soldiers in their tunic-uniforms and light caps took seats across the room.

After a short wait all the lights dimmed and went out save those on the

platform. A spotlight from the microphone stand illuminated the speaker's seat. A few moments passed during which the vast assemblage became quiet and then a figure, which I immediately recognized as El Zoia, ascended to the platform. As he stepped before the microphones a brilliant light was projected on the mammoth screen and, standing more than three hundred feet high, a clear color picture of him appeared.

EVERY movement, every feature, must have been visible from the farthest end of the hall. A murmur arising from the audience died down. The tiny figure on the platform inclined his head, followed exactly by the image above—and then his voice, amplified a million-fold, sounded from behind the screen.

His talk was short and concerned itself with anecdotes and descriptions of the campaign. In spite of our limited knowledge of the Zongainian literary tongue we could see that he was a born narrator. Within five minutes we had completely forgotten our situation, and were entirely engrossed in his charming tales.

After an hour of this he introduced a short-bearded man, the first such we had seen in Zongainia, who was the commander of the First Fleet. This man, whose name I believe was Ver Loxus Throm, complimented the officers and personnel of the fleet and introduced another—National Secretary is the nearest English translation of his title —who discussed the economic results of the war.

Then the Dictator took the platform and called up a dozen or more prolo commanders to be decorated with a silvery cloth headdress, not unlike those worn by modern Arabs. Murmurs of approval from the audience greeted each decoration. Next some fifty officers were awarded scarlet hoods for exceptional bravery and one spoke into the microphone and televisor.

Ver Anul leaned over and whispered in my ear, "The big event of the evening has not yet come. It will be a—surprise."

I made little of that remark and, attributing it to my ignorance, continued to watch the proceedings. For perhaps an hour these decorations were given out and then El Zoia took the stand.

"We now come to the presentation of the hood of *Ela Meta*, the highest honor possible to a Zongainian soldier, which tonight will be given to three of the crew of the *Alf Nueri* for bravery in the face of danger, unvarying tenacity of purpose and devotion to their country. Their names will be engraven for all time in the memory of Zongainia for having saved her fleet from destruction. Their names are—Lord Mitchell Hanavan of England—Professor Sheridan Milroy, England—David Lawrence, United States."

The murmurs of the audience broke into a roar of applause which drowned out even the loud-speakers. We lay back upon the bench, amazed, stunned. Ver Anul seized Milroy and me by the arms and cried, "Up, *up!* Go up to the platform! He's waiting . . ."

We staggered forward, unable to think, and blinked into the lenses of the televisor. I became conscious that El Zoia was speaking to us—of gigantic figures upon the screen that were our own—of a continual thunder of voices from the hall—and of a gold-colored hood being placed over my head. Then, our minds reeling, we were literally carried off the platform and out the side entrance while three hundred thousand people yelled madly for three escaped prisoners who had just been recaptured.

XVIII

REACTION from the events of the past few hours kept us in bed until noon of the next day. I doubt if we could have slept at all save for the gaseous sleeping potion blown in through the ventilator. As it was, however, we got a good dose

of slumber—the best thing possible after what we had passed through.

I awoke first, quite without memory of what had happened. I was lying under a glass panel frame like a counter in an American store. This enclosed bed, for such it was, was one of six in a big square room flooded with sunshine from windows and a skylight.

Outside lay a wide formal garden, a small lake, and beyond, a mounting range of forest-covered hills. My mind still groping, I sat up and nearly cracked my skull on the ceiling of the sleeping compartment. At this jolt recollection came in a flood.

The landing at Imperium—the strange man who had picked us up in the street—the auditorium—I held my head between my hands for a moment. Suddenly my attention was attracted by a muffled shouting and thumping. Startled, I looked into the next bed in which Professor Milroy lay tangled in the cape he still wore, shoving and pushing at his enclosure.

Seeing that I was awake he made motions indicative of escape and gestured toward the other bed-cases. I now observed that each contained a slumbering figure—whoever they were they had not awakened.

At this moment Professor Milroy found the mechanism opening his bed and the top rose like a jackknife bridge allowing my comrade to roll out on the floor. His first act was to direct me by many gestures and shouted phrases to pull down a lever inside, causing the glass case to open. The next instant I stood beside him.

His first words were an exact echo of my own thoughts. "In heaven's name, what has happened? Where are we?"

I shook my head. "On Earth, that's sure. In Zongainia, awaiting deportation, probably."

Milroy walked to the window. "At least," he murmured, "we can get another glimpse of the old world. Look, a butterfly."

I ran to his side to see. A wave of feeling swept over me as I looked out. Trees, grass, clouds, birds and insects, the golden light of our own Sun. For minutes we stood silently at the window, absorbing through every pore the warm sunlight, the familiar Earthly beauty of the scene.

Finally Milroy, turning away with an effort, pointed to the other beds. "Who are they?" he asked of the empty air. "Hanavan?"

We hurried to the nearest. Inside was a short stout figure, lying on his back and giving vent to snores audible even through the sound-proof case—Professor Pfeiffler! I rushed to the next case—yes, there lay Cummings, sleeping quietly, his face somewhat tired-looking. Milroy, ahead of me, cried out that he had found the little cockney, Hawkins. And in the farther bed Lord Hanavan was just in the act of awakening. It can be well imagined with what impatience we three waited the awakening of our companions.

What had happened to them after we had left the disabled prolo on our ill-fated search for wire? Had they been transported here on board the *Zongainian?* Did they know how we had been tricked into coming to the celebration? That the mysterious Ver Anul was an agent of El Zoia we now had no doubt. How long we had been watched could not be guessed. Hanavan tried to open Dr. Cummings' bed but could find no fastening outside. We had to wait.

Lord Hanavan went to the window, where he remained for several minutes before turning to us. "No escape there," he mused. "They're watching, we can be sure of that. Our fate, I guess, is in the lap of the gods."

"El Zoia, you mean," muttered Milroy. "The gods haven't a chance here."

"Well, in any case, we are going to see Dunsaan again or a more distant place." He paused to watch a hummingbird outside. "You know, I cannot understand yet his reason for last night—El Zoia's, I mean. He is so utterly unemotional that such an action seems con-

tradictory to his nature. He may have a love of the dramatic—a sort of grand gesture before the execution to impress his subjects."

From behind there sounded heavy footsteps and a voice deeply melodious, never-to-be-forgotten, rang out, in English, "I may have to deport you yet, gentlemen. You seem to know too much about me."

We spun around. In front of the now opened door he stood, attired in a white tunic and cape, hands on hips, beaming on us as if immensely pleased. We remained silent. "In your land," he continued, "stories usually end happily. I trust this one has."

Hanavan found his voice. "It has ended?"

"First installment," replied Ver Menisto. "To be continued."

Professor Milroy now spoke. "You seem to know about the magnet projector in Kanan!"

"Nothing mysterious there, Professor. My agent, whom you saw, told all about it."

"So you allowed us to work our way back on the *Zongainian* thinking we were unknown?"

"Precisely." He pointed to one of the beds. "I believe our learned Deutscher has awakened—Professor Pfeiffler. We spent many a delightful hour on the return trip. His Zongainian—he speaks with an odd accent but I learned a great deal of zoölogy."

PFEIFFLER sat up, blinking, then raised the glass case. "*Guten tag, mein Herr* Menisto. Vell, und here iss all der rest uf der oxbedition." He stood up, stretching. "Dot vass a vine bardy ve had last nighd, vasn't id?"

Now Cummings was awake. He climbed out, said good morning to El Zoia, laughed at our stupefaction.

"Your friends," explained El Zoia, "shared my suite on the *Zongainian*. We became quite well acquainted."

For some twenty minutes we talked thus, trading experiences, describing impressions, for all the world as though we were in Hanavan's London drawing-room. We were completely carried away by El Zoia's informal manner.

We walked out upon a white stone porch overlooking the garden, the wide valley and in the remote distance the city of Imperium, which lay far below and to the south. Above us rose a magnificent villa—palace rather—of white stone-like material, six floors high and covering acres.

"This," explained Ver Menisto, "is my regular home—when I am at home. We are in the province of Palata—recognize the Latin in Palata and Imperium, Milroy? And those mountains mark the northern border of the country."

He paused. Hanavan filled the breach. "We have been wondering for some time as to the—the disposal which will be made of us. We . . ."

"Of course," he replied, "and I have my mind quite made up on the subject. Your greatest desire is, I imagine, to return to your homes?"

We did not answer. Hanavan stood at the railing, looking at the slender spire of the white tower in the distance. Some small birds of an iridescent green fluttered on the balcony.

"I have been studying you carefully," continued El Zoia. You are scientists, semi-civilized, men of honor. I understand your thoughts toward returning to Dunsaan or even of remaining here under compulsion. And so, perhaps because I am not utterly unemotional or, because you might escape anyway, I am going to send you back. Your oath of silence will be enough. You have worked well for Zongainia and as soldiers of Zongainia you deserve reward."

He stopped. For a long moment we all remained quiet. Then Lord Hanavan spoke. "We give our word." That was all.

Ver Menisto hesitated for an instant. Then his entire manner changing, he said cheerfully, "Well, now that the matter is settled we might spend the rest of the day seeing a little more of Zongainia.

I have a small prolo here and we ought to cover most of the country before sunset."

I can remember little of the afternoon. We soared for hours in the tiny open flyer, sometimes high, sometimes skimming the surface of the lake. Now that our minds were no longer occupied with worry the beauties of the country were more apparent. A wide basin, containing the capital and the lake and flanked by three rich valleys constituted, with the magnificent mountain mass, the main topographic features of the region.

Here and there the plain was colored by cities between which silvery roads ran in geometric lines. In the extreme clarity of the air on the plateau every detail could be made out—buildings, streets, the odd streamlined ground-vehicles and the monorail trains, like the one we had first seen on that day so long ago. El Zoia navigated the machine himself, pointed out cities and rivers like a veteran tourist guide.

Finally, late in the afternoon, we descended to the roof of the tower. The same landing crew helped us out and in the office below the same secretary bowed and ushered us in. Ver Menisto now telephoned, using instruments quite out of sight, and made arrangements for a ship to carry us away.

"No use to send you on a three thousand-mile trip," he explained. "We can land you in London in an hour."

As sunset approached we supped, in the office of El Zoia, delicately flavored gelatine and the bitter drink. For some reason the food seemed better than before, possibly because it was the last meal we would eat of it. There was little conversation. El Zoia, in a corner, confined himself to brief answers to questions. The rest of us, at the window overlooking the lake and the mountain, watched the sunset—so like that on the eve of our coming.

Finally the meal was through. In response to orders given without our knowledge an attendant entered, bearing six complete suits of clothes secured I cannot imagine where. It is difficult to describe the effect these heavy dark things had on us. I had a disagreeable sensation of putting on a straitjacket as I struggled with the shirt and collar. After twenty minutes to effect this change a voice on the telephone announced that the prolo was waiting. Ver Menisto ascended with us to the roof.

"I believe I shall go with you," he remarked. "If it is foggy in London we can drop you at Hyde Park."

We climbed aboard, the engines hummed a higher note, the prolo arose effortlessly from the roof. The last gleam of light had vanished from the mountain and the yellow afterglow of the sun was fading over the western hills. Overhead the sky glowed a deep blue and in its depth an occasional star shone steadily.

El Zoia saw us watching and pointed. "A. Number Two—Venus. You would be interested—an unique world . . ."

AS OUR velocity increased the city slid ever more swiftly beneath us. Its luminous streets gathered together until they took on the semblance of a giant spider web. The mountain, a dull white now, fell away on the right. Ahead a sombre dark plain extended north. The jungle, the desert, Egypt—England . . .

Somehow, as the lights of Zongainia vanished one by one, I felt a regret, a vague wish to stay longer, to see more of this land. In the darkness of the cabin visions of the world, the old familiar world of houses and streetcars and noise and rush, became clearer. I began to reconstruct mentally the broken thread of my existence, cut so suddenly—was it only six months ago? Cummings and I would go back to New York and write up our paper on metaphoric rock deposits of North Africa. There would be questions to evade, curious acquaintances to avoid, inconsistencies to cover up about those six months.

It was now completely dark. Only the thin wail of the upper atmosphere told

us we were traveling more than eight thousand miles per hour. Above, glittering in a velvety black sky, lay the universe. Were these stars real? Yes, they were real enough, for beneath our feet the steel floor of the prolo vibrated with the beat of its powerful motors. They were real now—but I felt that they would soon vanish into nothingness with the prolo, after we had landed.

The hour passed quickly. A reflected gleam from the crescent moon told of the Mediterranean, miles below. And then the prolo dove downward into the thicker air.

The whistle of the wind increased and gradually a dim orange glow appeared in the mists ahead.

"That's old London all right," said Milroy in a shaky attempt at humor. "Look at the fog!"

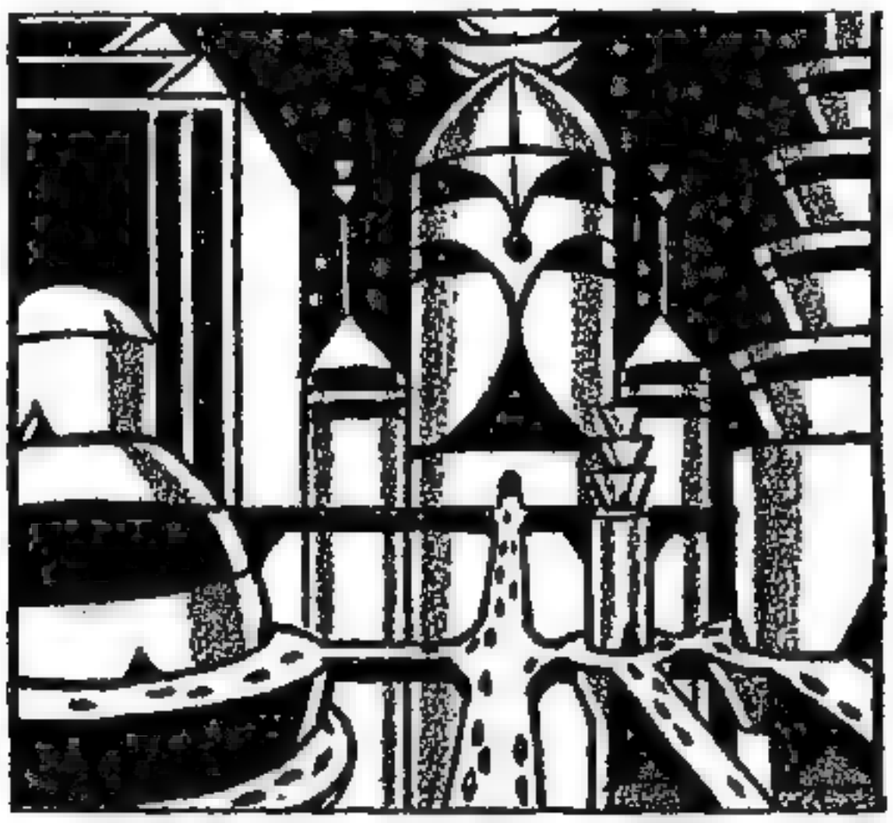
Suddenly we decelerated. Out of the vapors came the outlines of buildings and towers, and a vague confusion of traffic arose. The spectral shape of the Parliament building passed close, dull and squat beside the white Zongain Tower, and then branches scraped against our runners, leaves whipped past the window and we had landed! Someone opened the door and extended the ladder gangway.

"Hurry. We don't want to be caught by a bobby," whispered El Zoia.

We descended to the damp grass. A gentle rain was falling. We waited. In the doorway above El Zoia stood, his white garment shining in the glow from a distant street light.

"Remember," he cried softly, "should you ever want to come back Zongainia will welcome you"—the prolo rose swiftly—"and—good-bye." He raised his arm to wave and then the trees blotted him out. A slight breeze rustled the foliage and the mist wet our stiffly pressed suits.

For minutes we stood as men in a trance and then Pfeiffler said, "Leds—leds get in before ve get all vet."



NEXT ISSUE'S SCIENCE FICTION EVENT!

★

EVENING STAR

A Novel by

DAVID H. KELLER, M. D.

★

THE FAMOUS SEQUEL TO "THE CONQUERORS"

TRAIL BLAZER

Joe Whiteskunk was an illiterate Indian who had none of the specialized knowledge space travel demands—yet some deeper instinct made him the first human to feel at home in alien territory!

By RAYMOND Z. GALLUN

RAY GALLUN is a veteran among science fiction authors—he has been writing and selling such stories for more than two decades. Yet he is a writer whose material is invariably fresh and arresting, never shows a trace of genre-fatigue.

This is true because Gallun is that rarest of creatures among story tellers—an "idea" author. Seldom if ever does he come up with a theme or a gadget new to sf readers. His interest lies in visualising some "different" situation more clearly than most of his co-professionals and then digging deeper into the natures and feelings of the people he imagines facing such situations.

In Joe Whiteskunk it may be that he has birthed a character that will linger long in the annals of current and future science fiction. Certainly Joe is one we are not going to forget in a hurry.

—THE EDITOR.

MY TWIN brother Frank and I were just back on the ranch from college. Dad was dead, leaving us free. Magazines were full of diagrams of space-ships and living quarters for other worlds. There was recruiting ballyhoo on the television. At night we could sometimes see the fire-trails of rockets, outward bound from nearby White Sands, New Mexico. It

TRAIL BLAZER

Joe Whiteskunk was an illiterate Indian who had none of the specialized knowledge space travel demands—yet some deeper instinct made him the first human to feel at home in alien territory!

By RAYMOND Z. GALLUN

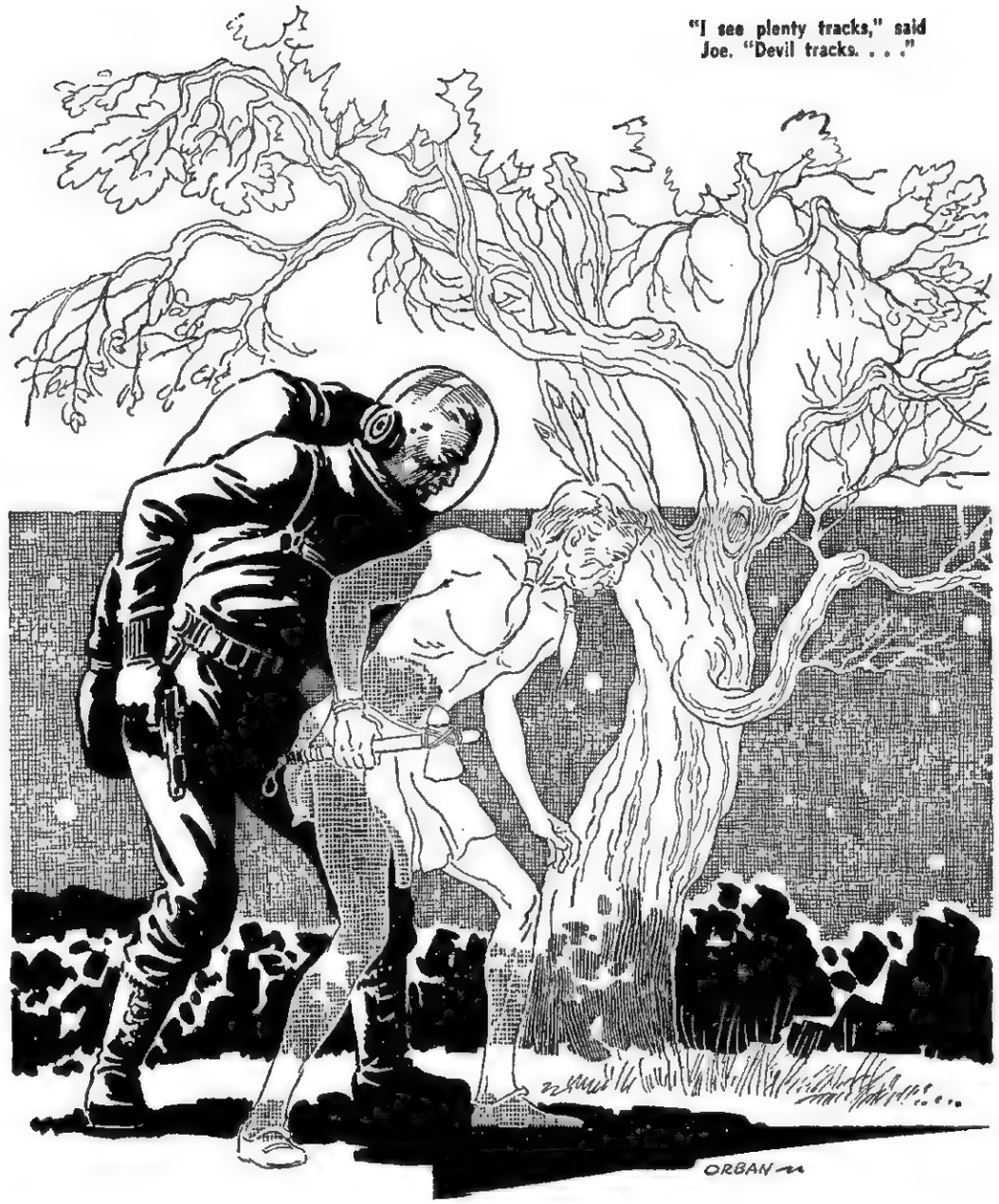
RAY GALLUN is a veteran among science fiction authors—he has been writing and selling such stories for more than two decades. Yet he is a writer whose material is invariably fresh and arresting, never shows a trace of genre-fatigue.

This is true because Gallun is that rarest of creatures among story tellers—an "idea" author. Seldom if ever does he come up with a theme or a gadget new to stf readers. His interest lies in visualizing some "different" situation more clearly than most of his co-professionals and then digging deeper into the natures and feelings of the people he imagines facing such situations.

In Joe Whiteskunk it may be that he has birthed a character that will linger long in the annals of current and future science fiction. Certainly Joe is one we are not going to forget in a hurry.

—THE EDITOR.

MY TWIN brother Frank and I were just back on the ranch from college. Dad was dead, leaving us free. Magazines were full of diagrams of space-ships and living quarters for other worlds. There was recruiting ballyhoo on the television. At night we could sometimes see the fire-trails of rockets, outward bound from nearby White Sands, New Mexico. It



became like drums beating in our blood.

"They need lots of young engineers like us, Dave," Frank said to me. He was leaning against the corner of the house. It was evening. "On the moon now—then gosh knows where."

"Sure," I answered, feeling both excited and sad. "The only question is, what do we do with Joe?"

Just then Joe Whiteskunk was fixing a fence not a hundred yards off. With the deliberation of a rivulet washing away a mountain—as usual. Joe, who had come from Oklahoma with our Dad long ago. Joe, who might have made an oil-fortune if a slicker hadn't cheated him of his claim. Joe, who resembled gnarled mahogany. Sixty-five years old, he was, if a day. He didn't know exactly himself.

became like drums beating in our blood.

"They need lots of young engineers like us, Dave," Frank said to me. He was leaning against the corner of the house. It was evening. "On the moon now—then gosh knows where."

"Sure," I answered, feeling both excited and sad. "The only question is, what do we do with Joe?"

Just then Joe Whiteskunk was fixing a fence not a hundred yards off. With the deliberation of a rivulet washing away a mountain—as usual. Joe, who had come from Oklahoma with our Dad long ago. Joe, who might have made an oil-fortune if a slicker hadn't cheated him of his claim. Joe, who resembled gnarled mahogany. Sixty-five years old, he was, if a day. He didn't know exactly himself.

Frank is no guy to beat around the bush. "Got to tell him what we mean to do," he said.

So we did. I began it with, "Look, Joe . . ."

For awhile he didn't seem to have heard. He just kept on working at that fence. But at last he said, "I go too."

I won't say that I was exactly surprised. I figured I knew Joe. Maybe he thought the Moon was something like Texas or California.

"You've got to know something special, Joe," I said patiently. "Like Dave, here. He knows all about air-conditioning."

Joe's face remained as deadpan as if he were a wooden Indian rather than a real one. "I know plenty special," he answered after a moment. "Hunt—track —new place—good. Plenty game."

Something in the glint of his black eyes told me that he was way back in his youth.

Frank busted out laughing. So did I. But there was a faint lump in my throat, made up of all my memories of Joe Whiteskunk. Teaching me to ride and to shoot, not by long-winded explanations but by example—or perhaps more by letting me be part of him. It's kind of hard to explain.

So I didn't want to say good-by to Joe. I knew that my brother didn't, either. We wanted to postpone it as long as possible. Besides we were a little worried about what might happen to him, left alone.

COMBINE all this with a certain residual kid-prankishness. We weren't above hazing Joe—letting his abysmal innocence lead him on—in this case toward the inevitable moment when his own ignorance must put a harmless and disgruntling end to his sudden urge to go where we went.

My brother Frank winked at me—such a wink as one Katzenjammer kid might give to the other. "Sure, Joe," he said, sober as a judge, "you come along with us. You hunt and track while we dig holes in all those mountains."

Joe seemed not even to realize that he was being kidded.

So the next morning we drove into White Sands with him. There, in the offices of Unified Lunar Enterprizes, Frank and I knew beforehand just about what we'd have to write of ourselves in the application blanks they gave us. We had our specialties. My line was minerals and mining.

We were sure of ourselves. We were in step with the exciting imperialistic rhythm that had seized the world. The outward thrusting, the adventure, the military significance, the dangerous industries that could be developed on the Moon, far away from the densely populated Earth.

Yep, to Frank and me they gave the glad eye. A big burly official grinned at us. "Pass your physicals, fellas," he said, "and we'll ship you out tonight."

About Joe? Well—you know. He got a look as if he was at least a little loopy —the hopeless sort of character that keeps popping up all the time, asking foolish questions. Like the guy ninety years old who tried to enlist in the Army.

"Come back in fifty years," he was told indulgently. "Maybe by then the Moon will be changed enough by science so that there are woods and game on it."

Joe looked a little puzzled. That was all. Of course this wasn't funny now for Frank and me. What could you do? Life consists of living and learning.

I'm sentimental. Halfway I wanted to stay behind with old Joe Whiteskunk. Frank is different. "Well, Dave," he said, "this is it. So let's do what the man says. We can phone Dad's lawyer to see that the ranch is looked after. Nothing much there anyway. We won't even have to take the car home."

"Sure—you fellas go," Joe told us. "I come too, pretty soon."

So, that night, strapped to chairs in a cabin that looked like the inside of a bus, Frank and I were sick as dogs in the absence of gravity as the sharp stars of space blossomed beyond the window-

ports around us. Facing the prospect of living on the Moon—an idea somehow out of tune with the instincts in human entrails, even when you're an enlightened young man—we were scared half to death.

"Good thing Joe couldn't come," Frank grunted. "He wouldn't understand anything. He'd die—just as if he'd suddenly found himself in an unnamed hell."

Right then we weren't very inspiring symbols of the pioneering urges of the human race.

Had we known that at that very moment old Joe Whiteskunk was huddled in the darkest corner of the dark baggage compartment of our spaceship we would really have blown our tops. Because in such a place during a Lunar hop a man could freeze to death or suffocate easily. Even if he were a trained scientist, who knew how to protect himself.

We were in space for better than seventy hours. I was too ill to pay much attention to the landing. But it was accomplished in a manner that was almost exactly the reverse of the takeoff.

Balanced by whirling gyroscopes, we came down sternward toward Camp Copernicus, our flaming jets gradually reducing speed. During the last few feet before we touched the ashy ground we hung almost motionless, swinging in the seats that adjusted automatically to the proper up-down direction of any gravitational attraction.

Then we were on the moon. Taking orders—fumbling our way into space-armor—looking at harsh sunlight and black shadows and jagged mountains that have driven many a man nuts with homesickness. Filing in a column across the ash to a large pressurized shelter of magnesium alloy that had been brought prefabricated from Earth.

This proved to be the entrance to a labyrinth of tunnels, newly excavated underground. This was Camp Copernicus, built in the bottom of the great lunar crater of the same name.

All of us greenhorn arrivals looked pretty awful. I felt like a foolish romantic, led into a death-trap by my own romanticism. God, how I wanted to go home!

WHILE quarters and bunks were being assigned the cry of "Stowaway!" arose. Right away I had a premonition that put my heart in my mouth.

Then they carried Joe in, tucked into a suit of space-armor. The story of what he had done came out, mixed with curses, from the mouths of the baggage-handlers. Right then Joe was a very frostbitten, very disoriented Indian, whose swollen face nonetheless showed a flash of truculence.

How he'd managed to survive in that space-chilled compartment, breathing only the air that was locked in with him, might, I think, have baffled a Houdini. He must just have followed some animal instinct when he bundled himself in paper wrappings torn from bundles and packages.

By the same instinct he must have relaxed and breathed shallowly to consume less oxygen. Something about how he must have done it all reminded me somehow of a stowaway rat—surviving not so much by intelligence as by some wisdom engrained into its whole cussed carcass.

"Joe!" I gasped. *"Joe!"* Into my voice was poured all my concern about him—when he must finally realize in some measure where he was, how inconceivably far he had blundered from anything he could call familiar. He would just wither then, I was sure. He was a simple ranch Indian, who had trouble writing his own name and could never understand other worlds.

Someone growled in my ears, "Oh, you know this fella, eh?" The tone was as official as the gold-braid that went with it—we civilian experts were under military direction, too. The tone bore a heavy load of contemptuous disgust. It blamed me, a greenhorn, for Joe's super-greenhorn presence. I was responsible.

"Yes, sir," I said. "Joe Whiteskunk worked for my Dad."

Well, that officer took my words as if they constituted an admission of mortal sin. "Oh—so?" he said with poisonous gentleness. "And what do you think *we* can do with him, here? Why didn't you bring a sick baby along? It would be less trouble.

"Why didn't you bring an enemy spy? Then we could just shoot him. Back he goes with the first return rocket and you'll pay his passage! Every last cent of it if I have to take it out of your hide!"

He said a lot more. He had me wanting to crawl into my space boots until a little glimmer of hope came. I looked at Frank, who hadn't said anything. Right then I didn't want any more of the Moon. Maybe Joe was our ticket back home—our way out of a signed contract.

"Sir," I told the officer. "With your permission I'll personally conduct this man back to Earth."

Yeah, but that was where Joe entered the conversation. He looked kind of sore but he sounded both obstinate and gentle. "I no go back, Dave," he said. "I come—I stay. You and Frank stay too. No be scared. Sure! You big boys now. Strong—smart. I smart, too. The Big Man back in White Sands tell big fib. He say no job for tracker here. Just now, outside, I see plenty tracks."

It burned me up. Joe was patronizing me—treating me as if I were a frightened child who had to be soothed. Treating me the way he had once when a gila monster had scared me out of my wits.

And he was rattling on with that crazy illusion of his. "Yeah, I see plenty tracks—old tracks. No wind here. No man tracks. No coyote tracks. *Devil* tracks."

Joe didn't even look awed. But in his black eyes, beyond the opened view-window of his oxygen helmet, gleamed something from the lore of his forefathers. It seemed to satisfy a question in his mind better than all our scientific sophistication could do for us. What I mean is that it enabled him to adjust better than we did to complete strangeness.

Right then something happened to our officer friend's face—presently I was to find out that his name was Colonel Richard Kopplin. He looked sober, puzzled, less grouchy—as if something that had been bothering him for a long time found support in Joe Whiteskunk's words.

"Hum-mm—devil tracks," he muttered.

No, I won't say that Kopplin didn't have plenty of other worries to make him grumpy and officious. Maybe his own nerves were a bit twisted just by his being on the Moon. Then he had a lot of responsibility—handling scared and inexperienced dopes who could go batty easily and throw everything out of kilter. Getting more tunnels dug, more apparatus set up to draw the constituents of air and water out of rocks, riding herd on experts to get mineral tests made.

And it was his job too to see that the astronomical observatory was finished and the Army fortress. Moreover, he had to deal with civilian interests. Mining companies and their prospecting and planning—companies who wanted to set up huge atomic piles and spaceship factories on the Moon or conduct immense and dangerous experiments that safety interests forced off the Earth.

But the worst part of his job was the fact that we weren't the only nation interested in lunar colonization. That name-calling, fist-shaking and blame-passing antedated the first hop into space. Don't make either party the villain too much. It takes two to fight. But for Colonel Kopplin these facts still made the Moon an additionally unpleasant post.

NOW he cursed under his breath, showing that he was a fairly human and intelligent guy. "Dammit," he muttered. "When I was a kid I used to wonder if we of Earth would be the first

beings of the Solar System ever to take a jump into space. Even though there are no obvious indications of space-travel by extra-terrestrial creatures in modern times, still there might have been such travel, once. Maybe millions of years ago . . ."

Kopplin's muttering died away for a moment. Then, after a pause which seemed designed to give his words emphasis, he said quietly, "I figured that a trip to the Moon would give the answer."

"Why?" I asked.

He looked at me as if I weren't so bright. "Because, sooner or later, through the ages, such space-travelers—if they ever existed—would get to our Moon. The Moon's been dead for at least a billion years. There has been no wind and no weather for that much time here. The lightest touch of anything against the dust on its surface would leave a permanent mark—because there is no force to rub it out."

That much was good logic. I nodded. Still, I was skeptical—as to the concrete basis for this reasoning.

"You're leaving something out, sir," I said.

"Yes, I am. But I can show you. Maybe your man here can really help us. It's important enough. Lieutenant Briggs—take over."

So Colonel Kopplin, Joe Whiteskunk, Frank and I went out there under the bleak stars. We all watched Joe. Odd, but he was top man now—when we had all thought he was going to be more helpless and out of place here than an infant.

He looked up at the huge blurry blue-green Earth, which hung almost at zenith, near the blazing, corona-fringed sun. There was something like awe in his face for a moment. The low Lunar gravity seemed to bother him some too—his steps were kind of uncertain.

But quickly facts that he understood as well on the Moon as back home on the ranch drew his attention. Kopplin had pointed to the ground, which wasn't exactly ashen here but seemed to consist of lava rock that had been pulverized by some terrific force.

And there, in plain view, were faint scrabbling marks, a little like those of a truck tire or a great millipede. Joe's eyes moved quickly, and ours followed his gaze. At a little distance there were other marks of a different character. Small round indentations—they could have been made with the end of a pogo-stick. They could have been made by a thing with a long stride. For a little way they were spaced evenly, like steps.

"Nothing to get excited about, I know," Kopplin growled. "Nothing to draw anybody's certain attention. Still if—"

Joe's eyes were very intent and searching—still I wouldn't say that he was excited. "Devil tracks," he said. "Two kinds. We follow, eh? Out across the valley."

Joe would have gone at it right then. Maybe that too was part of what made my blood run cold. I had always figured there was something funny about Joe. The *now* is the only time that exists for him really. For what he does he doesn't need what we would call determination. He just flows on like a river or a sandstorm.

I'd hardly call him stupid. But his intelligence is different. Something about it is in tune with natural forces. And what do you call that? Intuition? Instinct? Extra-sensory perception? How should I know! Maybe he has a guardian devil or a terrific stack of luck that keeps him on the right beam.

Look at those tracks my way—or your way. It comes out the same, I'll bet. Yeah—I was trying to figure what kinds of creatures or things or forces could have made those tracks—and how many million years before. Sure, you and I can make a sort of picture from what we know about science and other worlds. Living monsters, with ages of logical culture behind them—or shining robots.

But how about Joe Whiteskunk? He had no background with which to con-

struct such a picture—or even to understand its meaning. He just seemed to follow his nose. What thoughts went on in his head were as deep an enigma as those two kinds of tracks themselves.

Frank said, "We've got to go back to shelter, Joe. Too much civilization. We gotta rest up."

Well, we did that for several hours. And Joe studied his space-suit the way he used to study his rifle and I tried to help him to understand it.

Colonel Kopplin got together huge packs of equipment for us to carry. Again he delegated his camp authority to Lieutenant Briggs so that he could go along with us.

On our shoulders as we started out sat dread. And its companion, curiosity, magnified to the point of fascination. But above and beyond all that was the great spice of life—high romance. Who had been here on the Moon so long before us—and for what basic motive? And why weren't they here, now? Had they somehow failed, in their vast reaching out, to hold onto what they had attained? And might we not fail for the same reason?

SKIP the details of our progress across the floor of that tremendous lunar crater. We followed the scrabbled tracks —the circular ones soon vanished completely. And sometimes there was no spoor at all. Perhaps a more recent upheaval of dust had blotted them out. But, following Joe, we were always able to pick up the trail again.

Against the feeble Lunar gravity we climbed that vast crater wall, locating there a string of handholds—that were not quite handholds, since they did not comfortably fit our human hands—chipped out of the glassy rock. We topped the brim of the barrier as the lagging Lunar Sun crept across the sky. We came down in a congealed inferno of tortured rock outside Copernicus.

Five miles out Joe Whiteskunk found trail's end. It was a confused circular patch of tracks in the dust—as new as yesterday in appearance. Trampled markings full of violence and drama—an inconceivably ancient arena for two. And at the center of it lay the vanquished.

The being's weapon was as new and gleaming as yesterday. A small bright tube, which Colonel Kopplin picked up for us to stare at. And a little of the aura of the physical principles by which it had functioned crept into our minds, leaving deeper enigmas to challenge us, to label our human science the feeble and primitive groping it is.

The trigger-button—the tiny but terrifically stout pressure-chamber, in which a minute droplet of substance that was like that of the Sun's heart could be produced to yield energy. Atomic fusion. Four atoms of hydrogen yielding one of helium. And the barrel, which must have been lined with pure force to stave such heat away from weak metal, to direct such a blast of death.

Yet the being who had owned such a weapon had lost the fight, perhaps to a greater science.

The eerie corpse lay there. It did not resemble a centipede. Rather, it looked like a blackened old tree-stump with a thousand roots still contorted with agony. The spatial dryness of the Moon had sucked the moisture from ancient tissues, leaving them not only desiccated and harder than oak—but even charred. Beyond that the preservation was perfect.

"Bad things happen here," Joe said through his helmet radiophones. Then he just stood stolidly by while the rest of us proceeded to reach the same conclusion in our involved path of reason.

"The thing with the round tracks left no further spoor from this point," Frank said. "So it must have flown—moved above the surface."

"Sure," I joined in. "And this fight must have been just a tiny part of something far bigger." My voice was hoarse with dread and questioning.

Kopplin had been on the Moon far longer than any of us. So of course he

knew far more than we did. "Sure," he growled. "The Moon is big enough and hard to travel in. It's easy never even to notice such little details as corpses, tracks, artifacts. But could anyone ever miss the thousands of Lunar craters?

"Volcanoes, astronomers used to call them. Then the wounds made by vast meteors, crashing down from space. But one thing tests have shown—even their highest walls still show a trace of radioactivity, far above the level of natural uranium deposits. What can that suggest except that they are gigantic bomb-craters?

"What if the Moon was a battleground for two kinds of beings, from two different worlds—say fifty million years ago? You know that the gradual lessening of radioactivity in rocks provides a clock for calculating the age of a stratum. And that's the amount of time you get by calculation."

Well—I carried the ball from that point. But Kopplin certainly could have done the same. So could Frank. Only old Joe Whiteskunk was left out of it.

"The Asteroid Belt," I said. "Long ago it was figured to be the wreckage of an exploded planet. Was that explosion a natural phenomenon or was it part of war—between two planets? And what would be that other planet? It would have to be a planet smaller than the Earth too—cooling faster, supporting life s o o n e r, developing civilization sooner. Mars, most likely. Or maybe a moon of Jupiter."

My voice was a whisper. But there wasn't a thing new in what I said. I'd followed an old track of romancing handed down from stories that had groped at the unknown long ago. Here, however, the hints of truth were plain—that corpse at our feet, and that weapon. And the result was sharpened dread.

A thing which became the more terrifying, because it was personal—because history was on the same track again, set to repeat itself, for human beings this time. Everybody had read the signs before. But now, pointed out by a harsh and factual example, it was infinitely more vivid. It scared the sweat out of your skin.

WE LOOKED toward the east. And a rocket was tracing an inbound path of fire aganst the brittle star-curtain. One of *their* rockets—of that other nation, I mean—our enemy.

"What do you read in the flight of any such rocket?" Kopplin said. "Beauty, imperialism, the inevitable urge of all life to expand as far as it can go, with not even the stars the limit. It happened before—starting from Mars and from this Asteroid world. But then all the romance and glory turned to death and silence, by fury and its own scientific triumphs. Like some great flowering plant that never blossomed."

But then my brother Frank looked a little brighter. "Maybe that's good," he said. "For our pals, the enemy—and for us. An example, a lesson, the pointing out of an error in brutal terms. A warning not to do what other hopefuls did before us.

"Ever think that fear, instead of misplaced courage, could be the key to progress by way of caution and common sense? Lord, it's the one chance! For us—for them! Otherwise maybe all there'll be is another bigger and better Asteroid Belt, littered with everything from mountains to bobby pins!"

"Sure, Frank," I put in. "The path to future glory is a scary tightrope."

We started marching again. It was too late in that two-weeks-long Lunar day to start back to Camp Copernicus. So we went forward. Twice we put up an airtight heat-proof tent in which to eat and sleep. And when sunset came it didn't stop us. We had our lights for night-work—and the glory of the Earthshine over that maddening desolation.

But we didn't go mad—we were too frightened. With the disappearance of the Sun, the temperature of the surrounding ground dropped from higher than the boiling point of water to something a shade above absolute zero. But

what did that matter to us in our insulated space-suits?

Joe Whiteskunk led us on and finally picked up another trail, which led to a half-buried shelter of metal and a whole bunch of other ancient murders. Stump-like corpses—all except one. That one had belonged to the kind of creature that made the circular tracks. Its skin was black horn, its form was somewhat less human than a two-year-old's smeary drawing of a man. The prints its fingers —or tentacle-tips—would have made were crosshatched instead of spiral.

"Which is which, I wonder?" Frank asked.

I answered as well as anybody could just then. "Mars still exists, at least. It must have won. It must have been stronger. These things with the round feet were stronger. But the Martians must have lost too. Anyway, they haven't been around for a long time either."

We were exploring that shelter. It was hardly what a man could inhabit comfortably. The Asteroidians didn't have much use for rooms as we understand them. They lived like bugs—in sort of chinks between plates of metal, not ten inches apart.

That's other-world stuff—w h i c h shows about how close we'd be in physical needs to the people of most alien planets. And there were a thousand different small articles, the uses of which we could never name. Imagine yourself a Martian, mulling over a mess of combs, shaving brushes, boot-polish and the like —maybe you'll understand what I mean.

Of course we found treasure. No, I'm not talking about simple stuff like gold and jewels or refined uranium—rather a wealth of ideas. Maybe the best was the little rod the Martian had—it was wonderfully simplified and seemed to be both a weapon of terrible power as well as a means of flying.

But the Asteroidians had their inventions, too. Wonderful compact calculation machines. A thin filtering fabric that could purify and reoxygenate air. An automatic control device that would have worked well on our spaceships. And dozens of other things—many more than we could have probed and understood by brief and tentative scrutiny.

We pitched our tent again. And with our radio we hurled the news of all that we had found and found out, back to Copernicus, and out to that other encampment, of our potential enemies.

"You'll see for yourselves," Kopplin said into the mike, "if you haven't seen already. These others may have had cities here on the Moon—even on Earth. They might have reached the stars long ago. Instead they worked it wrong—and perished."

He said a lot more. Maybe when he was finished talking the tightrope path to a great future was a little tighter and steadier. But you can't end all the danger of the years and of chance and of opposed life or factions with mere fright and example.

We were back in Camp Copernicus, staggering tired, before the Lunar midnight. Frank and I slept. Joe must have too. But when we awoke, he was gone. Joe wasn't the kind of guy to ask permission from anybody to do anything. If anybody tried to block his way by force he'd just watch his chance and slip past the obstacles by stealth. I was scared for him but what good did that do?

I had my mineralogy job—the thing I'd signed up for—to look after. And Frank was tied up with his air-conditioning. But Joe had his work cut out for him. It was all he could do here.

HE WAS gone a full terrestrial week that first solo trip. I hardly believed it when the news came that he was back. For I was sure by then—with a lump in my throat—that he was gone for good—that his naïveté where science was concerned had tripped him up in an environment where there were so many horrible ways of dying if you didn't know exactly what you were doing.

But evidently Joe had learned enough of space-suits and things by observation, during our first excursion of discovery, to keep alive if nothing went too wrong.

He almost grinned at Kopplin, Frank and myself as he unloaded his pack in Kopplin's quarters. And it came to me that he hadn't changed much—it was as though that pack of his was full of skins from a trapping season and he was back at the trading post.

He had bits of queer fabric, colored blue. He had a wonderful camera. He had pieces of plating, that might have come from a blown-up space-ship. And he had some jeweled ornaments worth a dozen fortunes as artwork.

"You did fine, Joe," Colonel Kopplin said.

"Sure," Joe answered and I knew that there was a certain vanity in him. "I go back right away."

A few hours later we saw him trudging off across the crater-bottom, a lonely but contented figure, forever devoted to the wilderness—on Earth or elsewhere.

This time his luck, his intuition or his guardian demon seemed to desert him. For he did not return. After a Lunar day—almost an Earth-month—we went to look for him. Far out from Copernicus his tracks ended at the edge of an expanse of flaky ash more treacherous than quicksand. Even our probing radar-beams couldn't locate his remains at its bottom.

So long, Joe Whiteskunk. You were a true trail-blazer. You came much farther than you could ever have realized.

A year passed. Camp Copernicus became a little city, with all the comforts of civilization—with beautiful gardens even—under shining domes. It was the seed of the glory of the future—if our luck held. Of trans-spatial empire. Mines began really to produce. Great factories began to work. But of course our human dreams and plans were already far ahead.

Girls came to the Moon to work in offices, as lab technicians. And that, of course, was the surest sign of the success of our colony. One girl—a tiny dark-haired dynamo with the love of strangeness and millions of miles in her eyes—smiled at me. But how I happened to smile back and how we became Joan and Dave to each other is really another story.

In our factories on the Moon men of Earth built their first true interplanetary craft. From knowledge learned by their own right—and from what they were able to glean from wreckage left by the Martians and Asteroidians.

Mars was that craft's goal—or, more specifically, the deepest part of Syrtis Major, that great dark marking near its equator. A sea-bottom—verdant, compared to the cold Martian deserts. Once densely populated—a seat of culture. We knew that much from the fragment of a map that we had found.

I was one of a hundred men who said good-by to all that we knew. Frank, my twin, and Colonel Kopplin were others. And there was one little gray jolly man named Dimitri Vasiliev—from that other nation. A noted physicist. Was it a compliment to the practicality of the Brotherhood of Man and a promise of the great future of humanity, after the failure of the Martians and the Asteroidians, that he was one of us and our friend?

"On to Mars—on to mystery," he laughed—and his eyes shone with the same hopes that were ours. Proving again that there are fewer villains than some would have us believe—and that, from close up, people are just people.

Oh, yes—it sounds good. And we felt the triumphant vanity of it. But maybe it is an over-simplification. That path to the future is a tightrope in more ways than one. Everything is a gamble. And the bigger goal—not just Mars—was far, far off. Not just cities in the star-systems. But dreams that we couldn't clearly see.

Immortality—cosmic greatness to which we knew that only the minds of our distant descendants could ever be equal. We were still too primitive. Still,

we were on the right track and might win, where the Asteroidians and Martians had failed. We'd seen their ruined and deserted fortresses—triumphs of technology that had not been enough.

Maybe our greatest encouragement was the fabulous sum that was paid just for motion-picture rights of what we would see on Mars. Aside from food, comfort and love, nothing is easier to sell, even to the timidest stay-at-home, than high romance.

Our luck held. We left the Moon in a blaze of atomic fire. Several months were spent hurtling in a great arc that joined two planetary orbits. We laughed, we speculated, we worried, we cursed, we grew bored—but Mars swelled to a great murky opal, at once ugly and beautiful, and we landed in the deepest part of Syrtis Major just as we had intended. Ah, but we were a proud lot then, looking back at our conscious determination, courage and skill!

They say that pride goeth before a fall. And so, by a little oversight somewhere, it happened. Maybe in space, under the electro-magnetic emanations of the sun, or even by the friction of our ship's hull with the atmosphere of two worlds, we acquired an electric charge, which became the cause of a hot spark just as we touched the Martian soil. We'll never know just what was the cause.

EVER try to imagine a flash-fire inside a space-ship, where all your stores and your oxygen are sealed up? We could have all died very quickly. Eleven of us did. The rest of us got out of the ship in space-suits, most of us burned in various degrees. But were we any better off?

To the individual death is the end of the universe. The triumph of now and the triumphs of the far future can't matter much. And all we were, here on the Red Planet, was a bunch of blundering fools, as good as dead, without the best part of our supplies.

No, Mars isn't dead like the Moon. The sky we stared at was not black but deep blue. Go to a fifty-thousand-foot altitude on Earth and you've got about the same air-pressure—but still a lot more oxygen than on Mars. Want to try to breathe that thin desiccated atmosphere, even though a comfortable noonday temperature of nearly seventy degrees might encourage you?

Nope—you're not built right—you'd be the devil's own fool. The Martians are gone—they aren't there anymore to keep that atmosphere healthy with their science.

Colonel Kopplin was yelling, "Get the stuff out! Got to salvage what we can!" And those of us who were able were trying to obey. The fire was out soon, smothered by the Martian air mostly. But almost all of our oxygen supply was gone. And our water tank had been ripped open by the explosion of a big oxygen flask, weakened by the heat. The last of the precious liquid dribbled away into the powdery soil.

At last we stood panting and helpless. Inside myself I was saying, "Good-by, Joan. Good-by, dreams."

The scene around us, I guess, was beautiful. Ruins were everywhere—fused down to lumpy masses of glassy stuff, millions of years ago, by atomic heat in that last war. And everything was overgrown with blue-green papery vegetation, that stirred idly in a thin breeze. The sea-bottom that was Syrtis Major spread for miles all around and far off in the sunlight to the east we could see the ochre line of the desert.

"To find water is our only chance," Kopplin was saying. "We've still got the equipment to electrolyze it—to free the oxygen in it to breathe. But where, short of the polar regions, will you find water on a planet whose remaining total supply wouldn't more than fill a couple of our Great Lakes?"

"We could find the lowest ground here," Frank growled. "Try to dig a well."

Vasiliev nodded. He was a plucky little man. Maybe we were all plucky or

we wouldn't have been where we were. But what good was that against grinding homesickness—besides all the rest of our misfortunes?

But we began to get the necessary equipment together. We figured we had maybe five hours' air-supply left. A space-suit can be equipped for a long jaunt afield. But running for your life from a fire you can't always be fully prepared. A seal is made imperfectly. An air-purifier lacks adjustment. And if you've got anything to share part of it goes to pals who aren't so fortunate as you.

Wishful thinking at a time of despair, they say, can produce strange delusions. So now I saw a ghost stepping out from behind some weird Martian shrubbery. Lord knows that was all I could think then—because I couldn't know the simple train of events that had made the impossible true.

Yeah, I saw Joe Whiteskunk. And he wasn't even wearing space-armor. But from a disc strapped to the top of his head a faintly luminous aura flowed down over his ragged shirt and dungarees. A Martian invention—I didn't even think about it then. But that was the way it was. An aura which took up all the functions of our clumsy space-suits—protection from cold, air-purification, maintenance of pressure.

He was surrounded by a tough bubble of energy.

"Hi, Dave," he said and his voice was hoarse and rustling and dry. "Yup—me. Joe." He was as thin and brown and withered as a dry root. And he staggered a little. But his eyes were clear. Funny how his voice reached me through my helmet phones though I saw no transmitter. But that's ancient Martian science.

"No water down in valley," Joe croaked. "Little spring close by too small. Too many men. Water always bitter. So what? Sometimes I smell water higher up toward desert. I never look though. Now do, eh? Glad to see you boys again. Hi, Frank."

HE SHOWED us the twenty-foot hole he'd dug. There were a couple of spoonfuls of brackish muck at its bottom. Wildly we dug further, only to find dry sand into which the trickle vanished.

"Just spoil spring," Joe grumbled. "Now we go look."

"Toward the desert?" Kopplin growled. "That's against both science and common sense! I'll take a digging party down to lower ground."

"Okay," I said. "Fair enough. Just on the chance that Joe is right I'll take another party and go with him."

We were too intent on water and survival even to ask how Joe happened to be here, even though it seemed more impossible than any miracle. But I got around to inquiry as our group—which included Vasiliev—started out.

"Gonna tell us about you, Joe?" I asked.

"Sure," he said. "I found Mars space-ship on Moon. Nothing broke. I crawl inside. Press wrong button. Ship start for home. Big city here once in this valley. Home to machine that think, inside ship. Ship over there—maybe five miles." Joe grinned.

Far off I saw the burnished hull gleaming in the sunshine.

"How do you live, Joe?" I demanded.

"Had my supplies. Had space-tent," Joe answered. "Now eat hard fruit. And big slow bugs. Taste good when hungry. No game. Plenty gold ornaments though—and stuff for houses. Vases—very nice. Maybe now we start business, eh, Dave?"

"You're crazy, Joe," I growled.

Under Joe's guidance, we dug for water. Twice we got nothing. But the third time, fourteen feet down, we got a muddy swirl of brackish stuff that widened to a pool. It was all that we needed. Distillation could get the mineral out of it, if we weren't squeamish about what we drank.

By radio we learned that Kopplin's party was still looking. They hadn't found anything.

Little Vasiliev laughed gleefully. "I

guess there are neglected branches of science," he said. "About hunches—that is what you call them, is it not? About pigeons finding their way home. About your friend 'smelling' water . . ."

Sure. Joe Whiteskunk is an Indian—probably not quite an ordinary one. Maybe this story is mostly about him. Maybe it's about those deeper sciences. Or about fate and destiny and luck. Or about pride and humbleness. Or how simple life reaches out, sometimes winning, sometimes losing. Or about high romance . . .

I know how Joe managed to live alone on Mars. But I don't know how his mind stood it—how he escaped going mad. Maybe, like a primitive thing, he just didn't realize where he was—and that saved him. Maybe his luck was just a matter of being part of nature.

Nature is a word that covers a lot of ground. An atom, an amoeba, a galaxy—and everything in between. But they all must be joined together someway, be in sympathy and understanding. And maybe Joe's flesh is part of that understanding. That's why he always seems to know.

After our misfortunes most of us were fed up with Mars. The romance thinned. We wanted to go home to rest and brag. We could fix up our ship now—or maybe even use the Martian one, refitting it to be a little more comfortable for human occupation.

On my fourth day on Mars I said, "Joe—how would you like to be back on the ranch for a while?"

Joe thought about it. Then he answered, "No go. Stay here. Nice place. Plenty room. You go, Dave." His black eyes were on the distance. "Got plenty business here," he added.

None of us left for over seven months. By then we had a little camp set up—not much different, though far smaller, than Camp Copernicus. Maybe it'll be our first Martian city before long.

I left with the ship—I had to. But Frank stayed, and Vasiliev and a few others. I took Joe's "trade stuff" along. Golden ornaments, plaques, vases, strange carvings, stuff worth an emperor's ransom—because civilized people love high romance and call it beautiful. Does Joe really understand? I wonder.

I've brought Joan, my wife, back to Mars with me. Life goes on. Joe doesn't show up here much anymore. He's browner and more withered than ever. But with the help of decent food he's a lot spryer than he used to be. And his eyes are young. Has he found something like the fountain of youth too? Or is it just that the thirty-eight-percent-of-Earth-norm gravity of Mars is easy on old muscles? Search me.

Yesterday I saw him trudge off again toward the desert. He seems to belong here as much as the tattered Martian plants. I couldn't have believed that possible, once. Joe's a real trail-blazer. He doesn't understand galaxies. Stars are still just little specks in the sky to him.

But there must be a drive and an understanding in his blood and bone and nerves. Perhaps it's a vast primitive yearning. It's the kind of thing that will lead us out to the farthest galaxies, maybe a thousand years from now, if our luck holds. But it's not distance alone. It's grandeur, dimly seen. It's mind, comprehension, mystery. Maybe it's a matter of becoming demigods. Who knows? And don't ask me. Dream it up yourself.

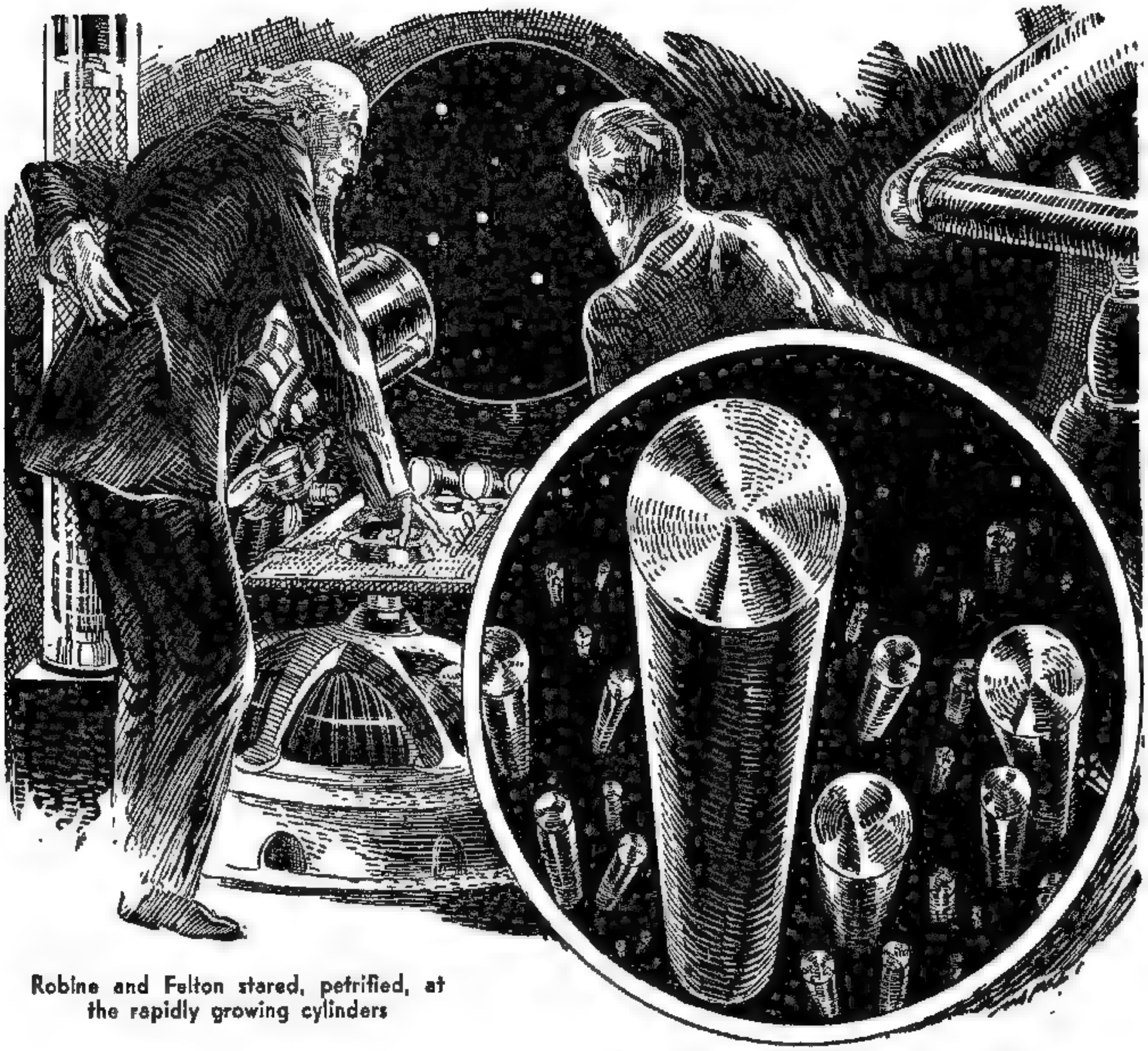
Maybe we of Earth will be the ones to do it—though the Martians and the Asteroidians failed.

●

If you hurry, you may still be able to get your copy of the 1951

WONDER STORY ANNUAL

25c AT ALL STANDS!



Robine and Felton stared, petrified, at the rapidly growing cylinders

The Cosmic Pantograph

By EDMOND HAMILTON

Must Man die, as Doctor Robine believes, with his own Universe?

"IMMUTABLE law," Doctor Robine used to say to his classes, "an inevitable working out of unchangeable forces which in the end must spell extinction for our race.

"We have millions of years yet, perhaps millions of millions. But in the end the slow remorseless workings of the cosmos will destroy humanity. Nothing can prevent it."

He would stand there, looking out over his class with his gentle elderly face and thoughtful blue eyes, one thin hand raised in an unconsciously dramatic gesture.

And as always, when Doctor Robine made that assertion, young Gregg Felton's square strong face would frown and he would shake his big head in dogged denial.

"I can't quite see that, sir," young Felton would say. "The human race is

Copyright, 1935, by Continental Publications, Inc., originally published in Oct., 1935, Wonder Stories

pretty tenacious and unconquerable—and by the time that emergency faces it it will be able to fight it somehow."

Doctor Robine always smiled. "You are to be commended for your unalterable faith in your species, Felton. And indeed man is a wonderful fighter, who has struggled up from brutish apehood to his present status and will surely struggle higher.

"But no matter how high he goes there will come a time when he must admit defeat at the hands of the blind forces of the universe. When the planets are too cold for life, when the suns have wasted away their energies and are dark and dead, man will meet his end, his power and craft unavailing. It may be that someday I will actually be able to show man's end—"

The elderly astrophysicist had broken off at that point, and none in his classes had ever learned just what it was he hoped to show. Most of them had forgotten all about it in the five years since. But Felton was remembering it now.

Young Felton stood in the chilly dusk of the sad November twilight on the porch of Doctor Robine's big old-fashioned suburban home. Turning up his topcoat collar against the keen wind he pushed again on the bell-button beside the door.

As he waited, he took a crumpled telegram from his pocket and re-read it in the failing light, his broad forehead wrinkled in a puzzled frown. Even now he was not sure that he had acted wisely in answering its summons.

GREGG ONCE I HALF PROMISED ACTUALLY TO SHOW YOU THE END OF OUR RACE STOP I CAN SHOW YOU NOW IF YOU WILL COME STOP DOCTOR THOMAS ROBINE.

Felton thrust the telegram back into his pocket as the door before him swung inward. He saw a familiar, thin figure silhouetted against the lights inside and heard a familiar gentle voice.

"I knew you would come, Gregg. You were the only one of my pupils ever really interested in the highest questions of human destiny. That is why I wanted you here tonight."

Gregg Felton asked perplexedly, "But what is it you're going to show me, Doctor? Of course, I understand that you were speaking figuratively when you wired that you'd show me the end of the human race."

"No, I was speaking quite literally," replied Robine quietly. "And I am not in the least out of my head, Gregg. You will soon see."

HE led back along the hall to an open door beyond which a flight of steps descended into a lighted basement. "It's down here, Gregg," he said.

"The end of the human race is down there?" Gregg Felton asked in half-jesting incredulity.

Doctor Robine said unsmilingly, "Not only the end—the whole future of the race and the cosmos is down here."

Felton followed him down into the brightly lighted basement, then stopped and looked around in astonishment. The big deep basement of the old mansion had been thrown into one great room. Along its walls was arranged a tangle of high-powered electrical apparatus, motor-generators and condensers and transformers, linked by bewildering wiring.

But at the center of the room rested an object that dwarfed all else. It was a steel sphere thirty feet in diameter, supported by a set of giant gimbals. The upper part of the house directly over it had been partially cut away to make room for it.

Felton observed that in the steel wall of the sphere at one point was a round glass window, that beside the window were eyepieces of telescope-like instruments set in the wall. Into the sphere at two points ran wiring from the massed apparatus.

He turned inquiringly to the astrophysicist. "What in the world is that?"

Doctor Robine's eyes were brilliant,

but he only answered gently, "It is an instrument with which I am going to create a microcosm."

"A microcosm?"

"Yes, an exact but infinitely smaller replica of the great cosmos in which we live. Atom for atom it will be identical with our cosmos but the atoms of the microcosm will be infinitely smaller and so the tiny cosmos they make up will be infinitely smaller—so small, in fact, that that steel sphere will contain the whole miscrocosm."

Gregg Felton, jaw dropping, said slowly, "A tiny replica of the whole cosmos inside that sphere?" Then he burst, "Why, it's crazy! How on earth can you reproduce the cosmos, atom for atom, on an infinitely reduced scale like that?"

Robine asked in return, "You've seen a draftman using a pantograph, haven't you? You know what it is, an instrument with two pencils—you trace a map or picture with one pencil and the other pencil automatically produces an exact but much smaller copy of the map."

"Yes, but there's no pantograph by which you can produce an exact miniature of the cosmos."

"There is, Gregg. You're scientist enough to know that every atom of matter in the cosmos vibrates and emits vibrations of force—though some are so weak as to be hardly discernible. The vibrations of different atoms differ too.

"Well, I have set up apparatus here to catch, amplify and transmit the whole range of cosmic atomic vibrations! Millikan has shown that such vibration can be built up into matter and that is what my three-dimensional pantograph does—builds them up into atoms exactly like those which emitted them but infinitely smaller. So you see, when I turn it on it will create inside that sphere a microcosmos that will be an exact reproduction of our cosmos in every atom."

Gregg Felton's staring eyes searched the other's face, his lips at last moving stiffly. "By heavens, it *could* be done! A microcosm exactly similar to the cosmos—but what has all this to do with the end of the human race?"

"I was coming to that," Doctor Robine assured him. "Being the same in every atom the microcosmos will have galaxies exactly like those of our cosmos, suns and worlds and an earth just like this Earth, with people on it exactly the same as the people on Earth now.

"Since it is the same in every atom, the suns and worlds and peoples of the microcosm must act exactly as our cosmos and its worlds and peoples will act. You see that, don't you?"

"Of course," Gregg answered. "An exactly like set of conditions must produce an exactly like set of results."

"Precisely." The scientist nodded. "But since the space-time continuum of the microcosm is billions of times smaller time will proceed at a rate billions of times faster.

"We shall see millions of years of changes in the microcosm in a few minutes. And those changes will be exactly the same as the changes our cosmos and worlds and people will experience millions of years from now!"

"Good God!" gasped Felton. "Then in the microcosm we can see in advance just what the fate of the universe and of man will be!"

"We can," said Robine, his own face illuminated with long-repressed emotion. "And that is just what we are going to do."

WITH these words the scientist stepped quickly to the apparatus along the walls. As his trembling hands touched the intricacies of an insulated control-board the banked machines burst one by one into life.

Motor-generators hummed, high vacuum-tubes silently glowed up, brilliant violet brush sprayed from condensers and transformers. Robine hurried to the glass window in the steel sphere and peered into its dark empty interior with Gregg Felton now beside him.

The scientist's hand sought a switch, his fingers clenching its handle tightly. "Watch, Gregg," he whispered. "When

I turn this switch the microcosm will come instantly into existence."

"I still can hardly believe—" Felton muttered and then the switch clicked.

The next moment the interior of the sphere held a vast number of groups of tiny points of light, infinitesimal little galaxies of suns exactly reproducing the mighty galaxies of the great cosmos!

They floated in the darkness of the sphere's interior, those galaxies, like diminutive clouds of sparks. They were mostly spiral in shape, and though they were so tiny as to be hardly visible there were vast numbers of them, separated from each other by proportionately immense distances.

Gregg Felton, staring shakenly into the window at that astounding microcosm, was suddenly aware that there was something queer about the arrangement of these hosts of miniature star-clouds. They seemed to the eye all to lie in a fairly even plane that was quite straight, and yet the ends of the plane that should have been farthest from each other were in fact adjacent.

Doctor Robine's awed whisper explained it. "See, Gregg! The microcosm reproduces even the curvature of space of our own cosmos—that is why it can be contained inside this sphere."

Felton, his eyes glued to the window, said stumblingly, "Every one of those tiny clouds of sparks a galaxy—each spark a sun, a real tiny sun!"

"We shall look at our own Sun, our own world, in the microcosm," said Robine, turning and feverishly manipulating the bulky controls of the telescopic instruments in the sphere's wall.

He was muttering as he worked, "These micro-telescopes are almost as great a wonder as the rest, magnifying to the nth degree by using electromagnetic forces to bend light-rays in super-refractive indices.

"*Now* I've got it!" he exclaimed suddenly, his eye close against the eyepiece of one of the unfamiliar instruments. "Look now, Gregg!"

Felton applied his own eye to the other eyepiece. Instantly it was as though one of the tiny clouds of sparks of the microcosm inside the sphere leaped to vision in greater size.

Now he saw that galaxy of the microcosm as though from close at hand and it filled the whole field of his vision. It was no mere patch of sparks now but a great assemblage of swarming suns and nebulae, roughly spiral in shape and turning slowly in space.

"You are seeing the galaxy of the microcosm which corresponds to our Galaxy," came the rapt voice of Robine. "I'll show you the sun that is exactly similar to our Sun."

It was a yellowish-red star of medium size compared with the others in the galaxy and as it grew larger in his vision, Gregg saw that around it revolved little planets. "That is the duplicate of our Sun in the microcosmos," Robine announced. "The third of those planets is the duplicate of Earth."

"But that star's a reddish one, not like our own yellow sun at all," Felton protested.

"You forget, Gregg," said the scientist, "that time in the microcosm is transpiring at a terrific rate. In the few minutes since we created the microcosm it has undergone changes that will take millions of years to happen in our own cosmos.

"In these few minutes countless generations have been born and lived out their lives and died on the microcosmic earth. Empires have risen and fallen, cities been built and ruined and reduced to dust. And the sun, growing older, has also grown redder and less hot according to the immutable laws of stellar evolution."

He added, "Earth must already be almost uninhabitable—the doom of the human race at hand. We shall see."

Their vision closed down upon the microcosmic Earth, covered with a gleaming sheath of ice from pole to pole.

"You see?" said Robine. "That is the way Earth will end, must end, and with it mankind."

"I don't believe man could be beaten down so easily," Felton said stubbornly. "Let's look at the other planets, those near the sun."

Robine shifted the focus of the microtelescopes and their vision leaped to Venus, only to find it too covered with ice and barren life.

But as the little world of Mercury came into their view and grew larger, a tiny sphere clinging close beside the dying sun, Felton shouted in triumph.

FOR there on the rocky surface of the microcosmic planet Mercury were reared cities, strange cities entirely enclosed by transparent shields and under which were structures and streets and crowding humans.

"You see!" cried Gregg. "Man has managed to reach Mercury, to build airtight cities in which to live there."

"But for a short time," came Robine's voice. "The sun will quickly be so cool that even Mercury won't support life."

And indeed, even as they watched, the sun was reddening and darkening, so that within less than a clock-tick the surface of the microcosmic Mercury was also covered with ice. "You see?" said the scientist. "Man must die with the waning of his universe."

"They could have got from this sun to worlds of some other star," Gregg insisted. "Look at the nearer stars."

Robine complied, and when their vision swung to the worlds of some of the nearer stars of that microcosmic galaxy, they found that, in fact, those worlds were now inhabited by hosts of humans.

"Man, the unconquerable!" cried Felton triumphantly from his eyepiece. "They're spreading out to all the stars with planets!"

"Though they spread to the farthest limits of their cosmos it will avail them nothing in the end," said Robine, "for their cosmos must die finally and they with it."

As the minutes ticked by the rapt two, looking in at the miscrocosmos inside the sphere, saw a titanic epic of human struggle and endurance, the awful fight of future man against the blind forces of the universe.

They saw the human hordes spread out through the whole galaxy, settling around every sun that had worlds and colonizing those worlds. Finally they had planted themselves everywhere through their own galaxy.

Then they began to edge out toward other galaxies of the microcosmos, other island-universes of stars. First they crossed the gulf between them and the nearest two star-clouds. Then with time they reached greater distant galaxies, spread through and colonized them.

The human seed that had been spawned on Earth long ago was carried farther and farther out into the reaches of the cosmos—until at last Robine and Felton, watching, saw that around the whole microcosmos there was no galaxy that had not been colonized by man.

Thus man reaches his zenith," said the fateful voice of the scientist. "Now watch the coming of the inevitable."

"They'll find some way!" exclaimed Gregg Felton, watching tensely.

Now the microcosmos was changing very swiftly. During all the time that the human colonists had spread through it many of its suns had been reddening, darkening, growing old and cold and ending up as dark stars, their energies dissipated.

More and more of them were dimming and dwindling as the minutes—as the millions of millions of microcosmic years—flashed by. Felton saw whole galaxies growing dim with appalling swiftness.

The mocrocosmos was dying, just as the real cosmos would die aeons in the future. Its suns had dissipated their matter and energy into mere radiation and only burned out embers of blackened stars remained. It was growing dark inside the steel sphere.

Through the micro-telescopes Felton and Doctor Robine saw the desperate fight of the humans against the creep-

ing doom. They saw the humans of the microcosmos perform stupendous feats, moving from planets from dead suns to other stars that still had some life, crashing dark stars together to form new molten suns.

But these measures could not halt even for a moment the colossal process of dissolution and death. Like a candle flickering out the microcosmos approached its end. Inside the sphere only a few ominous red sparks of old dying suns now glimmered in the blackness.

THEN these too, one by one, went out. Gregg Felton, unable to breathe, peered in through the window, saw the last of the crimson sparks darken and vanish. There was only blackness inside the sphere, the blackness and death that now held the microcosmos.

Gregg Felton turned to meet Robine's face, in which a strange exaltation struggled with fascinated horror. "You see?" cried the scientist. "It is the end of their cosmos and there is no place else for them to go now so that the doom they have long postponed is at last upon them.

"Just as that same doom will be upon us and ours millions of millions of years from now! Our race too will see its cosmos die around it and will be unable to flee its doom—"

He stopped suddenly, he and the younger man listening, startled. A dim whining hum, growing louder, was audible.

"That humming!" exclaimed Robine. "What—"

"It's in the sphere!" cried Gregg Felton.

They whirled toward the window, peered into the dark interior of the sphere that held the now-dead microcosmos.

For a moment they could see nothing in the darkness inside. Then, by the light that entered through the window, they glimpsed metal shapes inside, poised in space inside the sphere.

They were metal cylinders a foot long. There were scores of them inside the sphere and they were every second growing larger.

For a moment the two men stared in, petrified, at the growing cylinders. Then, as Gregg Felton saw them more closely, he understood and uttered a wild cry.

"Robine, those cylinders are ships!" he yelled. "Ships of the people of the microcosmos. They're trying to escape from their dead universe up into this cosmos by growing larger!"

"Get away then!" cried the scientist, his face deathly white. "When they grow a little bigger the sphere won't be able to hold them and there'll be a terrific explosion."

He grabbed the arm of the stupefied Felton, dragged him up the stairs and burst with him out of a door into the chilly night. Hardly had they done so when they were thrown from their feet by a tremendous explosion in the house behind them.

They staggered up to find that the big old mansion had been wrecked by the concussion. In the starlight they could see that in the wreckage lay the remains of the sphere, mere fragments of twisted metal, and mingled with them were other fragments of metal and tiny bits of bloody flesh.

Robine said dazedly, "The remnants of the microcosmic refugees who tried to grow up into this cosmos! Their cosmos and they are gone now, but Lord, what a magnificent attempt to escape the death of their universe!"

"I said that man is unconquerable!" cried Felton. "That's what we'll be doing, we men, millions of years from now when our own cosmos dies. We'll try to reach another cosmos, a greater one, just as they did."

He motioned up to the bright stars. "There must be such another universe, one beside which ours is infinitesimal, and when the need comes we'll reach it and conquer it. We too will someday leave our microcosm."

Fogarty saw the critter stick his head up out of a hole

The Reporter

By CHAD OLIVER

George Hartley didn't like Mars—nothing ever happened there!

GEORGE HARTLEY shuffled dispiritedly along the rock walk and watched the two moons of Mars floating through the night. Phobos and Deimos—romantic twins of space sailing around the mysterious Red Planet. Silver worlds crying over a dead land of dust and sadness and lonely canals.

Ah, the beauty of it all—*nuts!* He had ground out so much stinking copy about them—at five bucks a column inch—that he was sick of them both. He wished vaguely that they would buzz off into space and plough into the Sun. Yeah, that would be nice.

Then all the tremulous dames back on Earth would have to find something else to sigh over—axe murders, for instance, or the Lost Treasure of the Plutonian Caverns. Maybe he could get out of this

crummy dump. There must be a way.

He figured that there were probably worse things than being a reporter on Mars but it was hard to think of them right off-hand. Of course, he might have been sent out into the middle of the Sahara to knock out deathless prose about the awe-inspiring way in which the grains of sand trickled around in the breeze. That might be pretty grim too.

But it wasn't any joke to him now. That was the rugged part of it. He had to make a living sending copy about Mars back to his editor on Earth and the unhappy truth of the matter was that there simply wasn't anything to write about.

Oh, it had been all right at first. You just sat back and the stories wrote themselves. People read them avidly and you were the fair-haired boy of the wire services. But that was when it was all new. Nothing stayed new forever, not even Mars.

You could say all there was to say about the Martians in one short sentence —there weren't any Martians. There had been but they all must have died before the ships from Earth landed. There certainly weren't any around now.

The alien landscapes were fascinating but after a year or two they weren't news anymore. The scientific work went on and it sometimes made interesting copy. But nothing sensational had turned up and the scientists for the most part were a close-mouthed bunch. They were saving their discoveries for articles of their own in their unreadable, dry journals.

Yeah, it was a great place for a reporter. If he had been on Venus, now—

BUT he wasn't on Venus. He was on Mars and that damnable dust was crawling down his throat. He turned into Charlie's, which was where he usually wound up. The glittering sign over the door spelled out *The Silver Spaceship* but the bar was just Charlie's to almost everyone on Mars—and most of them put in an appearance there sooner or later.

He looked around the smoke-filled room and couldn't see much of anything, so he appropriated a bar stool and nodded to Charlie, who walked over rubbing his hands on his white apron.

"Evening, Mr. Hartley. What'll it be?"

"A pink lady."

"You're kidding."

"Two buckets of stardust to that young bartender. Suppose you just set a bottle of scotch down there and an eye-dropper full of soda. This feels like a heavy night, Charlie."

"Right you are, Mr. Hartley. Coming right up—and good for whatever ails a man, I'm thinking."

George fired up a cigarette and nodded to the other man at the bar—a little fellow in a green sweater. He had an average-looking expressionless face and George didn't remember having seen him around before.

"Care for a drink?"

The little man smiled and moved over next to George. "Don't mind if I do—providing I buy the next round."

"You must be a stranger here, buddy."

"Not exactly. But I haven't been in here in some time."

"Yeah, I'd have seen you. My name's George Hartley. I'm supposed to be a reporter."

The little man laughed unexpectedly and then coughed and stamped his foot.

"What's so funny about being a reporter?"

"I'm sorry; I didn't mean to be rude. My name is Henry Adams. I'm a photographer. Alien landscapes and things. Say, this is pretty good scotch, George."

"It won't taste so good in the morning."

The juke-box in the corner started in on the *Deep Space Blues*, played mean and lowdown. It was good stuff—it almost sounded like some of the museum records George had heard once in that little shrine in New Orleans, back on Earth.

They poured out two more drinks and

began to feel good. And even better.

They were well into their second bottle of Kentucky Overdrive—which the little man had paid for, true to his word—when the blasting roar of the Earth-bound rocket split the thin air and made the glasses vibrate on the long plastic bar.

"What's that?" asked Henry Adams, frowning.

"Rocket for Earth, pal, rocket for Earth. Wish I were on it, Henry, and that's a fact."

"Yes," mused the little man, wiping his mouth with the sleeve of his green sweater. "It would be nice."

"You been gone a good spell?"

"That's right. I was here on Mars in the old days but this is my first visit in some time."

"Lot different then, pal. Lot going on."

"Yes, there was. We never had anything better than this to drink though. Got a real kick to it, this does."

"You need it here, friend, and that's a fact. Nothing to write about anymore, nothing to write about. Now, Henry, if a man were on Venus—"

"It would be interesting."

"You ever take any pictures on Venus, Henry?"

"No, not yet."

"I should think you would, pal, and that's a fact. Things are popping there."

GEORGE HARTLEY drew concentric rings with his finger on the wet surface of the bar. He was beginning to feel the scotch now. Nice . . .

"Well," said the little man, "one goes where one can, I suppose. You know how it is, George. Editors, transportation, things like that . . ."

"Yeah, I know how it is and that's a fact. Had a 'gram from a friend of mine—Tom Toney, I guess you've heard of him—over on Venus. Interesting."

"Yes?"

"Yeah man! Steaming jungles under that cloud bank—those scientists sure had *that* one figured wrong—monsters crawling around like flies at five bucks a column inch. Semi-human natives with gills and such. Think of it, Henry—real aliens to interview, new viewpoints, a whole new world. A reporter could really clean up—old Tom's about ready to retire. There are some real stories there, huh?"

"And with pictures too," Henry Adams agreed.

"And here we are on Mars," George moaned, wistfully fingering the dwindling bottle of Kentucky Overdrive. "Nothing ever happens on Mars, pal, and that's a fact. Phobos and Deimos—nuts! Not one sensational scoop, not one."

"What about that one guy?" Henry Adams asked, sipping his drink thoughtfully.

"Who?"

"You know—I forget his name. The one that claimed he'd found the Martians alive, underground city and all."

George Hartley polished off the last of the bottle and tried to remember. There *had* been such a story but that was a good while back. He lit another cigarette and blew a smoke ring at the painting of the recumbent blonde on the wall in back of the bar.

"Yeah, I sort of recall. Let's see—I forget his name. Some crackpot to my way of thinking."

"Well, you never know."

"You do on Mars, brother, and that's a fact. Nothing ever happens on Mars. If there were any Martians around they'd go to Pluto or somewhere just to cheat me out of a story."

"I don't think they'd go *that* far."

"What I mean is, Henry—I'm a reporter myself, see, and I know how things are. I've got nothing against a good honest lie when a guy's hard up for copy but he ought to make it at least believable if he's going to dream up a lulu like that. That yarn he told now—too easy to check, too fantastic."

"I guess so," Henry said, waving thirstily at the bartender. "George, if I ever get to Earth—if I ever get to Earth *again*, that is—I know right where I'm

heading. Kentucky! Yesh sir—pardon me, yes sir, that's right where I'm heading. This is a real drink, George, a real drink."

"Let's see what's on that little old juke-box," George muttered, spinning the gleaming dial on the bar. "Hmmm. Nothing new—*She Was Only a Spaceman's Daughter, Interplanetary Wiggle, Under the Martian Moons*—there's a laugh for you. Same old corn—it never changes. You'd think they'd get some new wiresticks in this dump once in a while."

He played the *Deep Space Blues* again, inhaling deeply on his cigarette.

"Dig that trumpet, pal," George sighed. "Dig that trumpet."

"Unusual," the little man agreed. "Definitely unusual."

They went to work on a fresh fifth of Kentucky Overdrive and listened to the music in silence. The crowd in Charlie's was beginning to thin out now but the smoke still hung thickly in the stale air.

"Just what did that guy say about the Martians, anyway?" Henry Adams asked finally. "Do you remember?"

"Sort of. It was a pretty interesting yarn, come to think of it. Nutty, though. Let's see now. Let's see."

CHARLIE'S was quieting down. There was just a low midnight murmur of tired voices and the clean nostalgic jazz. It sounded as if it were far away in a world of its own. George Hartley tried to remember. The Kentucky Overdrive didn't help him any. He could see that this was going to be one of those nights in which he sat ruefully on the ceiling and watched the bed spin. But it was coming back—slowly.

"It's like this, Henry," he said. "I can't think of the guy's name, so what say we just call him 'Headline Fogarty?' Pretty good name, don't you think?"

"A beautiful name," the little man agreed. "An inspiring name."

"Well, it seems that our boy Headline was wandering around up at one of the poles—getting atmosphere, see? The ice had just melted—it's not over a foot and a half deep anywhere you know—and he was poking around with his notebook, looking at the marja plants—those weeds that come up under the ice.

"He was all alone, naturally. He *would* be alone except for those little green men who must have helped him concoct that story of his. The wind was blowing the mist across the wet ground. It gets pretty chilly up there even in the Martian spring. He sat down on a rock and lighted a cigarette. When he looked up, what do you think he saw?"

"An editor riding around on a broom?" suggested Henry Adams hopefully. "A space warp? The youngest lieutenant of the Interplanetary Patrol?"

"You're not even warm," George said disdainfully. "No sir. He saw a Martian."

"No!"

"Yes! This critter had just stuck his head up out of a hole when he saw Headline Fogarty. It's hard to say which of them was the more astonished. They just looked at each other, too surprised to say anything. Headline was a little scared too.

"This Martian looked something like a man—a small man—but he didn't have any nose. He found out later that they breathed through their ears. Man, I don't know how he ever had nerve enough to turn in a story like that and that's a fact."

"Kentucky Overdrive," Henry Adams suggested. "That stuff does things to a man. Go on."

"Well sir, before old Headline knew what was happening this here critter made some kind of whistling noise and Headline found himself surrounded by Martians. This situation wasn't covered in Headline's lab manual for crusading reporters, so naturally he couldn't think of anything to say. And the Martians couldn't have understood him anyway, of course."

"And then?" prompted the little man, eyeing the bottle thoughtfully.

"They took him with them down that hole, pal. Only it wasn't a hole, it was a tunnel. And *some* tunnel too, the way Headline described it. Long and white with indirect lighting and things. And do you know what was at the other end?"

"China?"

"No, Henry, not China—an underground city! Think of that—mysterious, weird, enthralling! Plot 44-X-708 in Hacker's *Little Dandy Plotting Book*, and that's a fact. And then what did they do, eh? What did they do?"

Henry Adams smiled wisely. "They gave him a transymbolizer and he could really *talk* to them!"

"Check the first time. Our boy Headline, pride of the purple press, had been reading too many grunt-and-groan space oprys. But we mustn't be cynical, Henry. Cynicism is a disease. Let us show a little m o r e respect for Headline Fogarty."

"I would remove my hat if I had one."

"Well, he takes this transymbolizer, see—it's quite small. You can read minds with it and it fits into a man's pocket—and starts making with the dialogue. I don't remember any of it but it must have been rare. And at five bucks a column inch too."

HENRY ADAMS said, "Your mouth is watering, George."

"I just wish a story like that would fall into *my* lap, that's all. All I ever get out of a bottle is a headache."

"Cheer up, George. You are an unappreciated genius. Go on."

"I don't recall everything that went on. There was a lot of brightly-colored hocus-pocus and an assortment of odd machinery. I believe I mentioned the breathing through the ears. Well, that's not the half of it, Henry.

"They could walk just like we can, it seems, but they don't have to. No, sir—not the Martians. If they took a notion they could *baroknitz*. And when they were real happy they could even *worgnox*."

"Talented creatures," observed Henry.

"Quite. Headline never was able to explain exactly what happened when a Martian *baroknitzed*, much less when he really cut loose and *worgnoxed*. But they zipped right along and you couldn't even see them move."

"Remarkable!"

"Yeah—but we digress, Henry. We have left Headline Fogarty dangling on the brink of almost certain disaster. The plot thickens. Excitement runs at a fever pitch."

"This looks like a job for Lieutenant Blaster, boy wonder of the Interplanetary Patrol," offered Henry Adams, smiling.

"No need for him, pal, no need for him. Things aren't as bad as they seem for our boy Headline. Do you know what the Martians told him next?"

"I can't imagine."

"It seems that they were a peaceful friendly people and that's a fact. They wanted no trouble with Earth, see? Variation 4-B on sub-plot 68—that's why they were in this underground metropolis.

"Headline didn't mention any beautiful princesses or evil prime ministers around. His conscience must have been bothering him. Anyhow, these Martians were so kind and merciful after countless generations of advanced evolution that they simply *couldn't* bring themselves to dispose of Headline Fogarty, even though he endangered their secret. What do you think of that?"

"The Martians must have been too fine a people to live on their own planet after the barbaric Earthmen took it over," Henry Adams said. "Not that we Earthmen aren't the wonders of the Solar System, of course—I read the papers."

"You bet we are, pal, and that's a fact. Just look at me—George Hartley, end product of millions of years of selective breeding. Ah, the final design at last becomes apparent!"

"To return to Headline Fogarty . . ."

"Yes. Well, the Martians just let him go and that's all there was to it. They

figured that nobody would believe his story—how right they were—and they sort of *moved* their tunnel some. Mighty engineers, these Martians.

"Our boy Headline was never able to find the tunnel again and he never saw another Martian. He came back here to what we laughingly call civilization on Mars and filed his story. No proof, no pictures, no nothing.

"He had a reputation as a good reporter before that time too. It's a shame. Just shows what this place will do to a man. I'll be covering Cicero's first oration against Catiline in the Temple of Jupiter next thing you know."

"What finally happened to him?"

"Hard to say. May be dead, for all I know. His name was mud with all the wire services after he filed that pipe-dream of his. But he's probably around in some bar, just like we are, wishing he'd played the game a little smarter."

"Could be," Henry Adams said, lighting another cigarette.

They were alone in the bar now and the air was hot and still. The juke-box was dark and silent, a lonely shadow against the featureless wall, waiting for a coin to bring it to life again. Charlie was wiping the damp bar with a white cloth and yawning suggestively. The red neon sign outside that spelled out *The Silver Spaceship* was dark and the door was closed.

"One more drink left apiece," George said. "Let's polish it off and take our leave of beautiful Charlie's, where the sun never sets."

"With infinite reluctance, we must once again turn our prows homeward away from the enchanted isle," the little man agreed.

Sadly they reached for their drinks.

GEORGE HARTLEY breathed in the warm, dry air of the dark street. It was late and his head felt fuzzy and tired. The little man stood quietly at his side, a cigarette in his hand.

"Well, Henry, it's been gay and all that," he said. "I hope to see you again."

"I won't be around [illegible]g," Henry Adams said, a touch of regret in his voice. "But who knows? We may run into each other again one day."

"Here's hoping anyhow. I'm going home and get some sleep. I have a lot of work to do tomorrow. If I don't turn in a story soon things are going to get slightly hungry around here."

He watched the sinking Phobos, low on the horizon. Maybe there was another story in it. He didn't know. Or he could check at the spaceport or the Anthropological Bureau. Nothing much doing, probably. Nothing ever happened on Mars. "I hope you find your story," the little man said. "Being a reporter isn't the easiest job in the world."

"You can say that again, pal, and that's a fact."

He shook hands with Henry Adams and shuffled off down the deserted street toward his room. The Martian night was soft and he could hear the sweet songs of the Martian night birds singing down the sighing winds.

Adams was a good guy. Too bad he wasn't going to be around longer. He was lucky—he didn't have to stay. He shrugged, feeling the scotch buzzing in his brain. This was a great life he had picked out for himself—a great life.

Nothing ever happened on Mars.

Henry Adams hurried alone through the silent streets, whistling the *Deep Space Blues* quietly to himself. Good tune, that—catchy. He smiled. It had been quite an evening. Profitable and enjoyable and definitely *unusual*. Something to tell the children about if he censored out the Kentucky Overdrive. Kentucky must be a rare place indeed.

The little man passed outside the sleeping settlement and walked briskly through the whispering grass of the Great Fields. He felt the warm breeze against his face and watched the stars winking in the night. It was nice to be in the open air.

So *that* was what had happened to the reporter who had stumbled upon the

(Concluded on page 116)

The crystalline rock would make Birkett the richest man in the System

Uranian Justice

By WILBUR S. PEACOCK

A perfect crime is tough enough on Earth—but on a strange planet the odds are even greater against a killer!

THE sky was a dirty gray, its dimness brightened but little by the tiny orb that was the setting Sun. The minor moon, Ariel, moved across the horizon in a retrograde motion a scant few minutes ahead of its companion satellite, Titania.

Kurt Birkett scowled, scuffing his feet soundlessly over the frozen terrain. So this was Uranus! Well, he hated the place, although he had been on its surface less than twenty-four hours. He hated this world's frozen surface, its dirty sky, its blinding storms that descended with monotonous regularly in battering waves of force.

And more than anything else Birkett hated the man plodding ahead of him. He despised him with a savagery that he had not thought possible for a human being to feel. For it was due to Frank Mason's insistence that he had made this special flight from his comfortable outpost on Jupiter to this bleak planet of eternal winter.

"It'll do you good, Birkett," Mason had said cheerfully, "to live in a spacesuit for awhile. Since you will be comptroller here before long and since Uranus is within your interplanetary province, you should become familiar with the environment."

So Birkett had accompanied the famous explorer through space to a world on which nothing organic could survive. And now here he was, fatigued and

Copyright, 1940, by Better Publications, Inc., originally published in Fall, 1940, Captain Future

cold, stumbling behind Mason, as both of them sought the outcropping of hykalium.

Birkett swore luridly as his leaden feet stumbled in a rockfault and threw him to the ground. He lay helpless for a moment, shaking with rage. The bulky figure ahead turned suddenly. Then hands yanked at the fallen man's suit and raised him to his feet.

"Easy, Birkett." Frank Mason's voice crackled in the earphones. "This would be a devil of a place to rip your suit."

"How much farther?" Burkett asked ungraciously, jerking himself free of the helping hands.

"Can't be much more than a mile—another hour should do it."

Frank Mason, still alert and erect despite the clumsiness of his suit, turned back to the original trail, went slogging on.

Birkett paused momentarily, then went forward, afraid to lose sight of the man ahead.

Birkett bit his lips. He had made up his mind and nothing could swerve him from his purpose. Frank Mason, he decided deliberately, had to be murdered. For but a mile ahead lay a fabulous fortune in hykalium.

The value of this new element had pyramided in the past few months to an unbelievable height. Hykalium was rare and valuable because all of the known sources of this atomic catalyst were slowly dwindling. In a few years there would barely be enough left even for scientific purposes.

KURT BIRKETT had never liked his appointment to Jupiter, had fought it bitterly without success. He had taken it only because the salary had been good for the three-year contract he had signed.

Now that his three years were up he had his choice of signing again or of returning to Earth. Foolishly he had gambled away his pay months before. Now he had no alternative but to sign up again. He shuddered at the prospect of the same weary grind for three more years.

Yet ahead lay a fabulous fortune, known but to himself and Mason, ready to be taken by a man daring enough to risk breaking a few laws.

Kurt Birkett grinned suddenly. He was not afraid of breaking a few man-made laws. He still remembered how he had murdered the bookkeeper who had been about to expose certain shortages in the books. He laughed silently as he remembered the clever way in which he had made the investigation prove that the slain man had been the embezzler, had committed suicide.

That murder had not hung heavily on his conscience and yet it had been for a few thousand dollars. Now a short distance ahead lay a deposit of crystalline rock that would make him the richest man in the Solar System.

Birkett's gloved hand eagerly caressed the frosted butt of the gun at his side, ready for instant action the moment it was needed. He reviewed his plans as he walked along, considering them with a calmness that surprised himself.

He would kill Mason, then return to Jupiter with the story that the explorer had died from a fall. When his time was up he would return to Earth.

There he would organize a group of men as crooked as himself to help form a smuggling ring to dispose of the catalyst.

Within a few years at the most he would have more wealth than he could spend in a lifetime. He chuckled harshly at the thought, his eyes hot and feverish behind the cellu-visi-plate. He would have to slave away for another three years—but what a price he would collect for his toil!

"Did you say something?" Mason asked.

Birkett's head shook in negation, although he knew the other could not see the action.

"No, I just coughed."

"Oxygen okay?" Mason's voice grew

a bit worried. "You should have at least seven hours of it left."

Birkett flicked his eyes to the helmet gauge.

"It's okay," he said. "I only hope it lasts."

"It will," Mason said reassuringly. "We've been out but four hours. We'll have more than enough to find the outcropping and return to the ship."

"If we can find the ship in this storm!" Birkett said pessimistically. "How would we ever find it if we had no compass?"

Frank Mason's voice rang in the earphones, his laughter strangely youthful for a man who had faced death so many times on alien planets.

"The ship's due west of us," he said easily. "A few hours of steady walking and we could see the perma-flare." Then his voice scaled in sudden excitement. "Birkett, here it is! We've found it! There's enough hykalium for centuries to come."

Birkett stumbled forward eagerly, his eyes straining to see the discovery. His brain rasped in his helmet as he plowed through the snow. Hot blood pounded at his temples.

"Is that all it is?" he asked disappointedly, seeing nothing but a small mountain of crystalline rock.

"That's it." Mason's voice was strangely soft. "That one hill means that pleasure crafts and expeditions will be able to travel in space for a dozen centuries."

Kurt Birkett knew then that his murder plan had to be carried out. He knew instinctively that Mason would never consent to keeping the discovery a secret nor to going into a partnership to control the price of hykalium.

His hand sought the butt of his gun, then stopped when he saw that the other was scratching a crude map on a sheet of visi-plate. He waited, knowing that the map was necessary if he was to find the deposit again.

He was grimly thankful that Mason had thought to make a map without being prompted.

AND then, just as Mason finished the map and began rolling it into a tube, Kurt Birkett lifted the muzzle of his squat gun. His face impassive, he pressed the firing stud.

Mason caught the movement out of the corner of an eye. He whirled with pantherlike speed, throwing himself flat, his right hand darting for his holstered gun.

But he had moved too slowly. The blasting concussion of the explosive bullet pressed him flat to the ground, snuffed him into unconsciousness.

Birkett gasped at the speed with which the job had taken place, then lurched forward. He ripped the map from a slack hand, then aimed the gun for a finishing shot.

As he was about to fire he hesitated. Instead he holstered the gun, a thin grin on his sly face. Then he leaned over, bled the oxygen tank on the prostrate man until the pressure gauge indicated that but three hours of life-giving gas was left. This was perfect. If anyone found the body it would look like an accident.

Satisfied that the man would not be able to make the four-hour return trip Birkett fumbled for the wrist compass on Mason's hand. As Birkett glanced at the mechanism his face went utterly white. The terrific blast of the explosion had wrecked the delicate instrument.

Birkett staggered back, his eyes wild and terrified. Then slowly, the fear left his face. He didn't have to worry. He knew how he could make the ship. It was easy. All he had to do was use some knowledge that was common property of civilized people.

Smiling, satisfied, he swung on one heel, started swiftly through the snow.

* * * * *

Frank Mason stumbled through a rocky terrain that tripped him again and again. He lurched heavily, his face blue with near suffocation. For three hours he had used failing strength to reach the ship, moving with a speed that

was not hampered by Kurt Birkett's stumbling presence.

He fell heavily near the ship, heard the final gasp as his tank went empty. Holding his breath, then breathing shallowly, he fought to his feet again, stumbled against the ship's frosted side. He fumbled at the airlock, finally made his numbed hands work the right combination.

The veteran explorer fell through the door, swung the portal shut, then literally ripped open the tiny door that led into the air-filled interior. His fingers were all thumbs as he tugged at his visi-plate. Then the tiny port flipped open and he drew sweet air into lungs that were afire.

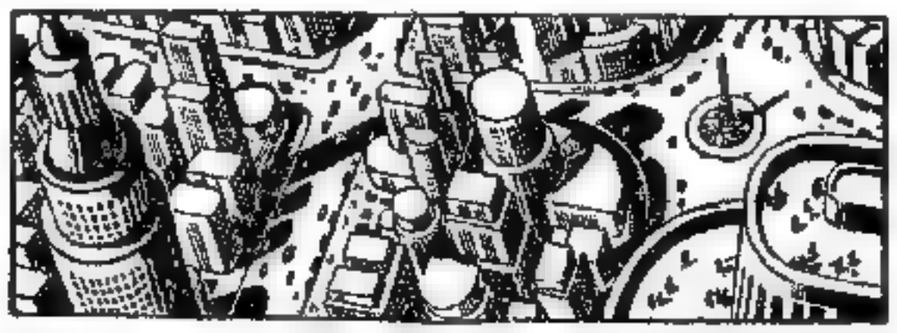
Mason lay there for minutes, feeling life creep back into his oxygen starved body. Sleepiness deadened every thought. He heard the first blast of the storm outside, felt the ship rock a bit from the titanic blasts of snow-filled air. He knew that it would be an impossibility to find Birkett until the storm let up. Rolling tiredly to his side he drifted into slumber.

Mason woke just as the storm faded over the horizon, stumbled to his feet, every movement a torture. He slipped from his suit, went forward to the controls. Lifting the ship he headed toward the hykalium deposit.

The explorer flashed past it in a few seconds, hovered high in the air, searching for his murderous shipmate. For two minutes he searched without luck, then finally sighted the black spot on the white ground. He whipped the ship toward it, landed with frantic speed.

Kurt Birkett was dead, his face black with suffocation, the visiplate in the front of his helmet open in one last frantic effort to find breathable air. Snow covered his body with a light film, showing that he had stumbled for hours through the storm. Rolled into a tiny cylinder and thrust through his gun belt was the crude map. Frank Mason stood silently for a moment over the stiffening body of the man with whom he had hoped to enrich the civilized worlds.

"Poor devil!" he muttered to himself. "Birkett thought he would make a fortune. He tried to murder me, thinking he could escape in the ship. He knew that the ship lay due west of us and, finding that my compass was broken, set out in the direction of the setting Sun. What he didn't realize was that the Sun on Uranus rises in the west and sets in the east! He was going in the wrong direction all the time."



THE REPORTER

(Concluded from page 112)

Martians. He felt better, knowing about it for sure. And all that about Venus! Interesting. It should make a good story, a *very* good story.

He looked around him in the Great Fields. He was alone. Only the sighing wind and the stars could see him now. Grinning, he took off his nose and put it in his pocket.

The little man stopped walking and began to *baroknitz* cheerfully toward the pole. He felt fine. Laughing softly, he really gave out and put on a brilliant exhibition of uninhibited *worgnoxing* across the lonely fields. By all the dreaming Spirits of Mars, just wait until his managing editor read *this* story!

The silver world of Phobos smiled down upon him from the edge of the world. It was good to be going home again.

Sarkin had counted on the attempt to crush him with a book

VERMIN

By WILLIAM MORRISON

The giants hated humans, and the humans hated—

A GIANT shadow swooped down upon them without warning and involuntarily the two visitors cringed. Sarkin noted however, that Norick, with nerves strengthened by long experience, simply drew aside to the shelter of a cliff and said in a low voice that was definitely not a whisper, "Wait here. He hasn't noticed us."

Sure enough the shadow passed—and a second later Norick led them forward again. Above them, almost as far as the eye could see, stretched a smooth blank wall. Behind them, across a wide plain, rose a similar wall. Norick pulled aside a curtain that hid an entrance in the nearer wall and they followed him inside. "You've never seen a play?" he

asked in a tone of surprise.

Sarkin and his wife, Leta, shook their heads. "We've heard vague rumors that such things exist," said Sarkin.

"They exist, all right," said Norick. "In fact, I try to write them myself in my spare time. The ones they act, though, are usually pretty old. There are a couple by a prehistoric called Shakespeare and one each by some of his contemporaries—Euripides, Wilde, Ibsen and Shaw.

"They're hard to understand, naturally, as they refer to a time that was almost forgotten long before the Great Migration. All the same the words have a soothing rhythm. Come in and listen."

Both Sarkin and Leta watched in wondering silence the strange scene that met their eyes. Upon a raised platform, visible to the entire audience, two men and a woman were declaiming their inmost thoughts and behaving as if they thought no one were looking at them.

"It's what is known as a stage convention," explained Norick at the end of what he designated as an act. "They pretend that the audience just doesn't exist."

"But they know that the audience is there," objected Leta. "It has come there for the single purpose of seeing them. They would speak the lines of the play to each other if there were no audience."

"I know it's absurd," agreed Norick. "But you get used to the absurdity after a time and then you have difficulty realizing that the act of watching a play is anything but the most natural experience in the world. Don't pay too much attention to your own uneasiness. Just listen and watch and enjoy what you can understand."

They tried to follow his advice but the strangeness of the proceedings was not to be got rid of so easily. And then, in the middle of the third act, the whole theater shook and both audience and actors froze in their places.

They could see how the sweat poured down the face of one of the actors, who was supposed to represent a calm and imperturbable character, but every one was sharing his emotions and no one blamed him. After a few seconds the theater settled back in place and the play went on as if nothing had happened.

LATER, when he was taking them home, Norick admitted, "I thought they were on to us that time."

"What would have happened if they had suspected we were there?" asked Leta.

"They'd have knocked the theater down and tried to smash us as we ran for safety. I had a very dear friend"—his voice faltered for a second. "I went to college with him. He was killed at a concert. And my brother was squashed to death just a year ago, caught outside his own door by one who probably never even knew he had stepped on him."

"It isn't as bad as that where *we* live," said Sarkin. "There aren't so many of them and at least we usually have more warning when they're coming. We've set up a rather elaborate alarm system."

"What good does it do you to know when they're on their way? If they want to take the trouble to get you they can."

"Not always. We have some good hideouts. And we're devising ways of striking back. As a scientist," said Sarkin modestly, "I think that they're more vulnerable than most people imagine."

"It would take an army of us to kill one of them," retorted Norick gloomily. "I'm not the kind of man who runs down the achievements of science but you'll have to admit that up to the present the best inventions you people have turned out have been pretty small tubers."

"We'll admit that we haven't much to boast about so far," agreed Sarkin serenely. "But as I have indicated we're beginning to learn about them. And I think that our chances are better than you poets and artists believe."

Norick would have retorted but at that moment Leta screamed. Sarkin put

his arm about her and she seemed to tremble as she shrank back against him. "What is it, darling?"

She didn't answer in words but pointed. In the shadows, a small creature darted from one rock to another, then disappeared into a crack. Norick shrugged. "You women are all alike. I didn't get a clear look at the thing, but it was obviously too small to hurt you. What was all the shrieking about?"

"Ugh!" said Leta with distaste. "The thing was so—repulsive. What was it?"

"I don't know. Never saw one before," returned Norick.

"They've appeared lately in the next district," put in Sarkin. "Saw a small note about them in one of my journals. It's believed they were driven out of their former habitat by the drought."

Leta shuddered. "I hope they don't like us enough to stay. They give me the shivers."

Norick, proud of his superiority as a male, laughed. But the laughter froze on his lips as a peal of thunder rolled suddenly over them. Despite his greater experience with danger, this time he had been thrown off balance and he was the first to lead the dash for shelter. Two of their giant enemies passed and then the three emerged again, perspiring at the narrowness of their escape.

Norick seemed less amused than before as he led them to his home, keeping within the shadows of the great walls when possible, scurrying across the broad plains when more open travel was unavoidable, always with an eye out for a convenient gully or ravine into which to fling himself in case danger threatened. It was not an enjoyable trip for the two visitors. By the time they reached their destination they were in a state of exhaustion. Norick was little better off.

Later, after a hearty meal, they tried to relax. But always they were conscious that their enemies were not far away. The house was too well placed and too sturdily constructed to shake with every passing footstep but they could feel occasional faint tremors that reminded them continually of the presence of their enemies.

When Norick showed them to their room and assured them confidently that they could go to bed without fear of being killed in their sleep, Leta tried to pass off his remark with a joke. But the jesting words changed to a shrill scream when she caught sight of another of the small creatures darting into a hole in the side of the room. Later she confided to Sarkin that she didn't sleep a wink all night.

Sarkin did slightly better. He slept for two hours toward morning—but before that he had done a great deal of thinking. When the day finally dawned he dressed and had Norick guide him to the local public library, one of the two that their civilized world afforded. The playgoing and the visiting of art galleries during his sojourn here were incidental. He had been sent because there was important work to do and it was time that he began it.

The shelf on history was disappointingly meager but the librarian was himself a historian and with his aid Sarkin was enabled to form a fairly clear picture of the events he had come to learn about. He took copious notes and did a great deal of thinking as he set them down.

THE history of their race began with almost twoscore men and women, who had found themselves in the great central plain some five hundred years before. How these few founding individuals had got there was not quite certain but at least the general outlines were clear. They had arrived in a Great Migration from a planet attached to a star they called the Sun, which they had left at a time when their race on this planet was engaged in a vast civil war.

"The manner of their leaving," said the librarian thoughtfully, "is not definitely established. It is known that our own race had attained the ability to travel from planet to planet but an in-

terstellar journey was still beyond them.

"The consensus of opinion—I can cite such authorities as Trelyan, Maumber, Cullis and others—is that our forefathers came from an outer colony, and not from the original home planet.

"Our year, by the way, otherwise completely arbitrary and inexplicable, is supposed to correspond to the period of revolution of the home planet. But I digress. The colonized satellite of the Sun is supposed to have been visited by a ship of one of the Giants at a time when the losers in the civil war were facing extinction.

"The Giants had no suspicion of a civilized race so much smaller in stature than their own. Our forefathers, to the number of twenty, were supposed to have flown into the Giant ship by means of tiny planes, which escaped the traps set to bar small animals.

"Once in the ship, of course, it was simple for them to hide in out-of-the-way cracks and corners. They reached the Giant home planet after several generations of travel, during which their numbers increased, despite accidents, to thirty-seven.

"During the decades of the Migration itself, it goes almost without saying, most of the original scientific attainments of the race were lost. It would be expecting too much of the original twenty to be masters of the different branches of biology, physics, chemistry and the numerous other sciences which formed part of the ancient civilization.

"Fortunately they did take along several extremely valuable books. They remembered too that certain things had been accomplished and we know that some day we shall accomplish them again. But the research that is an indispensable preliminary must be repeated *ab initio.*"

"Whatever that may mean," said Sarkin.

"From the beginning," translated the other. "A phrase that has come down to us from the time when the race was just evolving. But let me go on with my story. Our forefathers adapted themselves to life on this planet rather well. They had preserved as much knowledge as they could and they began to build and organize, keeping their activities hidden from the Giants, of whom they had a natural fear.

"For a hundred years or more our ancestors managed to keep out of sight. Then, gradually, the Giants seemed to become aware of their existence. There seems, offhand, no reason why both races, the large and small, could not have coexisted here peacefully. We are not powerful enough to interfere with the Giants and there seemed to be no reason why they should interfere with us.

"The Giants, however, took a different point of view. They hated us from the beginning and took steps to exterminate us. But though they stepped up our death rate tremendously our numbers are still increasing. The wise policy instituted by Vilyer, of building our homes within their cities, wherever they themselves are most populous, although it has had its unpleasant aspects, has been our salvation.

"In order to destroy us completely they would have had to destroy their own homes. They are therefore unable to make use of explosives—atomic or otherwise—they are severely limited in their use of poisons and they are forced to utilize less certain methods, which we have so far been able to parry.

"We have developed antidotes for the few mild dusts and gases they occasionally use against us. We have developed minor weapons—"

"You needn't tell me of those," interrupted Sarkin. "I have one of the latest models here myself."

"Unfortunately they can't kill," lamented the librarian.

"Even so they're reasonably effective."

The librarian went on with details to confirm what he had already told and Sarkin, while making notes, thought

over what he had learned. They were fighting a war which they seemed to have no hope of winning but in which they had so far managed to hold their own. The tragedy of the situation lay in the fact that there seemed to be no necessity for such a war at all.

Suppose they could get into intelligent contact with the Giants, explain their situation, arrange for peace on terms that would be to the benefit of both races? He put the question to the librarian.

"That has been tried," said the latter. "About a hundred years ago as a matter of fact. A prominent electrical expert—I think his name was Jugas—produced electromagnetic waves that could be detected by their apparatus and managed to establish temporary communication.

"He even compiled a dictionary of their language, which I have here." A withered hand pulled an old volume from the shelves, and passed it over to Sarkin. "His attempt ended in complete failure and I believe he himself was crushed to death."

"Why?"

"The Giants absolutely refused to hear of peace. They gave no reason that I know of."

"Do you mind if I take the dictionary home and study it?"

"Under the circumstances, no. Of course you'll have to fill out a card."

ON the way home Sarkin was hugging the sides of the great walls rather absent-mindedly, in the manner of a scientist who has more important matters on his mind, when his figure was suddenly enveloped in shadow. As he looked up in alarm he heard a great snarl—and then a monstrous body filled the air and seemed to dive at him.

He twisted to one side and as he did his foot caught in a crack and he fell headlong. The body landed over him and in the resulting darkness he was conscious of a sharp, overpowering odor. Great spiky bristles rasped through his clothes, tearing them into shreds and lacerating his skin.

Then momentum carried the creature past him and he could see once more. He watched it twist rapidly, caught the gleam of its eyes, saw it crouch for another spring. He raised the weapon of which he had been so modestly boastful a short time before.

The creature that had attacked him was much smaller than one of the Giants and fortunately his aim was good. His shot caught it below the eye and the vibrations of an ensuing howl of rage almost swept him off his feet.

The creature somersaulted in agony, one great paw tearing at its eye, and then another shadow enveloped both Sarkin and the animal which had attacked him. A gigantic foot rose above him, ready to stamp him out.

Sarkin fired again. He could hardly miss so extensive a target but this time his missile had to tear through an outer covering before lodging in the foot itself. Nevertheless it must have penetrated deeply for it was now the Giant's turn to roar and Sarkin's cue to dive into a crevice and escape.

He found himself in a dark and narrow corridor from which a side entrance led in the direction he wanted to go. He flashed a narrow beam from an electric lighter to illuminate his way. From a map on the wall he realized that he was in one of the numerous escape tunnels so thoughtfully provided by the local authorities. By following it he was enabled to return to Norick's home with a minimum of risk.

He was still somewhat breathless from his narrow escape but he began to study the dictionary nevertheless. The structure of the Giant language was simpler than he had supposed and a short appendix gave him its essentials.

Another appendix supplied details of the apparatus Jugas had used in its compilation. A few days of study would enable him to master enough of it to send and receive messages and a few more days would suffice for the building of suitable apparatus by a technician.

During the following days he worked with a minimum of interruption. Once the neighborhood was flooded with an unpleasant gas but suitable absorbents for it had been developed only a short time before and Sarkin did not even have to leave the house.

And once, when Norick had guests who chatted in another room while Sarkin soberly continued his studies, the place was thrown into an uproar by an invasion of the tiny creatures whose appearance had so revolted Leta. With a single exception, all the guests, both men and women, were aroused to the point of frenzy.

Sarkin heard the shrieking and yelling and stepped in annoyance from his study. He saw supposedly intelligent human beings running around madly to escape from creatures that couldn't harm them, throwing furniture and racing frantically for safety whenever one of the equally frightened beasts headed in their direction.

He watched in silence and when the last little invader had made its escape stepped thoughtfully back into the study.

A few days later the apparatus was ready. He had learned from the experience of Jugas and conducted his broadcasts from a relay station, so that if the Giants traced the waves back and attempted to kill him, as they had eventually killed Jugas, he would not be so easily victimized. Then he began to send out his messages.

On the second day he received a reply. The Giant mentality was evidently geared to lower speed than his own and the questions and answers dragged out over the course of several days. There was a considerable amount of repetition, as both individuals went back again and again over points which had not been made clear. But in essentials, the conversation was as follows:

Sarkin: My name is Sarkin. I am speaking unofficially but in case we can arrive at any sort of agreement I am prepared to transmit our conclusions to my government, which I am sure will give them careful consideration. (That ought to impress him, thought Sarkin. I must sound like a born diplomat.)

Giant: We are not interested in reaching agreement on any subject.

Sarkin: Why are you conducting a war of extermination against us?

Giant: That is our business.

Sarkin: We have done you no harm whatever. Isn't it absurd to spend so much energy trying to kill us?

Giant: (No answer.)

Sarkin: Do you mean that we *have* done you harm?

(Again no answer. There must be a question of military secrecy involved here, thought Sarkin, and a glow of pleasure swept through him. We must be more dangerous to them than we have realized.)

Sarkin: If we have done you any harm it has been unintentional. Are you allergic to us?

Giant: No.

Sarkin: If it's anything else we can come to an agreement to eliminate features of our activities that you don't like.

Giant: Only one sort of agreement is possible. You must surrender unconditionally and leave the planet.

Sarkin: That is out of the question.

Giant: Then so is agreement.

Sarkin: Tell us what harm we have done you. We may be able to put a stop to it.

Giant: (No answer.)

Sarkin: Your proposition is absurd. Do you kill merely for the lust of killing? Or is it because you think we cannot hit back? We prefer peace but we are not defenseless, despite your superiority in size. We are preparing gases and explosives of our own. We shall soon carry the war to you. Peace would benefit you as much as it would us. (I may be exaggerating slightly, thought Sarkin, but not much. In another ten years we'll certainly be able to hit back effectively with a few gases and explo-

sives of our own.)

Giant: (No answer.)

Sarkin: Do all your race think as you do?

Giant: (No answer.)

Sarkin: You leave us no choice. If you really intend to exterminate us—

At this point the conversation came to an abrupt end. The Giants had located his relay sender and now broke in on it. Sarkin had the satisfaction of hearing, on his observer set, the explosion that drew a cry of pain from the leading Giant and wrecked the relay as well.

He had learned from the unfortunate experience of Jugas. They had tried to trap him, and had been trapped themselves, thus receiving very convincing evidence that he was not boasting overmuch when he talked of his own race's ability to hit back.

LATER he talked over the situation with Leta. She had been on a round of museums, plays and poetry readings but the pleasure of these diversions palled rapidly when she learned that the Giants had their eyes out especially for places of amusement, knowing that in them they could bag large numbers of victims in a comparatively defenseless condition.

"Something will have to be done," said Leta firmly. "How do you expect actors to do their best when their performance is always liable to be interrupted by some one's stepping on them?"

"That's not the point," observed Sarkin. "The question is, why do they hate us? Why do they try to kill us off?"

"Does there have to be a reason?"

"Of course there does. The Giants are intelligent."

"Does there have to be an *intelligent* reason? It may be just a whim."

Sarkin bit his lip. "You're right, it doesn't have to be intelligent. But don't judge the Giants by some of the people you've been seeing. They're not creatures of whim."

"I don't know what you mean by that," complained Leta. "Good Heavens, Sarkin, I haven't understood half the poetry I've been hearing the past few days. Don't you start talking like a poet."

"All right. What I mean is that the Giants are motivated not by whim, which is something trivial, but by a deep-seated emotional reason. Leta, why do you hate those little creatures that have been making you scream every now and then?"

"I don't know whether I can explain or not. They're so repulsive—"

"That's the point. Why?"

She said helplessly, "How can any one answer a question like that? Why do I love you? Why did I hate Gorson Manders—"

"Never mind that," said Sarkin in haste. "I don't want to discuss the men you knew before we were married. I'll merely grant you that it's a fascinating topic and get back to the original subject. We have to find those reasons."

"Well, I can tell you that nothing on Earth—and I'm not using the name of our ancestral Mother Planet in vain, Sarkin—nothing would have made me like Gorson. Just as nothing would make me like those furry little creatures."

"You dislike them because they're furry?"

"Not only that. It's the way they creep. At the thought of one of them touching me—ugh!"

"Your skin crawls?"

"Exactly. They're—they're vermin."

Sarkin's eyes glittered at the word. "And *we* are vermin to the Giants. That must be it."

"But that's absurd. *We're* not repulsive!"

"Not to each other, just as the furry creatures aren't repulsive to each other. But our smooth skin may be repulsive to the Giants—their own furriness and the ideas they've formed that smooth skin is ugly may have conditioned them to that.

"Then again they're three-legged and our two-legged gait may seem to them an unpleasant, hopping mode of loco-

motion. To them our voices may be unpleasant squeaks. And when you add to all that the fact that we are as intelligent as they are and potentially harmful because of our intelligence—perhaps they have reason enough to hate us."

"But if that's so—what can we do about their silly ideas?"

"Nothing. I'm afraid. It's possible to treat our own individuals to rid them of the fear of small creatures. But we're in no position to make the Giants lose their fear of us."

"If they really have any fear."

"I think I'm right. But I'll investigate further, Leta."

Further investigation, as Sarkin had expected, confirmed his theory. He found references in old books to the fears that had afflicted human beings while still on Earth. Many had been repelled by mice, spiders, insects, crustaceans, snails, worms—the list was long and inclusive. Elephants had been repelled by mice.

Even on the other planets native animals and plants had aroused repulsions. One inoffensive plant had been rendered extinct merely because it resembled a slug and thus offended the sensibilities of the first colonists on Venus.

Moreover there was no way of removing these repulsions without extensive psychological treatment and there was no opportunity to convince the Giants that such treatment would be useful. The war was inevitably on to the death.

IT was only a few days after Sarkin had reached this conclusion that the Giants confirmed it. They opened a campaign of extermination beside which all previous ones were pale and harmless.

They used poisonous and repellent chemicals, they baited traps, they systematically searched out and destroyed the larger dwelling places, even at the cost of ruining some of their own buildings. They hunted down the hapless victims with their tame animals. In certain localities the death rates mounted alarmingly.

At the Special Assembly called to deal with the new menace Sarkin had the opportunity to express the conclusions at which he had arrived. Strangely enough it was his friend Norick who challenged the value of these conclusions.

"Granted that they hate us," said Norick, "it would be absurd to suppose that so intelligent a race is afflicted with so irrational a fear. Moreover Sarkin's theory doesn't take us a step further in devising methods to combat the danger."

"I should like to differ," observed Sarkin mildly. "If I am correct—and I think I am—my theory offers a very simple method of routing the Giants. We can turn their own irrational fears against them. Of course a short training period may be necessary and experience will doubtless teach us many improvements. But there is a method of attack against the Giants which I am willing to apply in person."

"You are willing," asked Norick incredulously, "to seek out the Giants and attack them?"

"Exactly."

A delegate arose and shouted, "Mr. Chairman, the honorable delegate is obviously insane. I suggest that he be removed by the Sergeant-at-Arms and that a discussion of logically possible methods be continued."

To Sarkin's regret that set off the kind of uproar which might have been expected. It was not until evening that he was able to explain his plan. And it was not until a week later, after rigorous training, that he and one of the younger and more reckless delegates formed an experimental team to attack the Giants.

Armed with no more than the usual weapons, which were capable at most of inflicting a painful sting on their gigantic enemies, they invaded no less a gathering than a Giant Repertory The-

atre. The Giants had concentrated on attacking their own places of amusement, thought Sarkin, and turnabout was only fair play.

There were five of the great creatures in a room, two of them seated at a table, and during the thunderous roll of presumably sparkling wit Sarkin and his companion managed to reach the floor beneath the table itself. Sarkin's heart was in his mouth for fear that one of the actors or a member of the audience might notice him but attention was centered too intently on the play. At a critical moment, when his companion gave him the signal, he took the plunge.

He had climbed up the table leg, using a specially prepared scaling ladder and now he showed himself on the flat surface of the table. Shouting at the top of his voice to draw every one's attention, he yelled, "Here I am! Come and get me!"

The words he used meant nothing to them but his shrill squeak brought the thunderous dialogue to an abrupt stop. One furry Giant hand rose and remained suspended in the air because the individual to whom it belonged hesitated to dirty himself with the squashed corpse of the furless creature.

Sarkin had counted on that. He had counted too on second thought, and the attempt to squash him with a book. As the great volume started its descent he leaped aside, fired into the back of the hand that held it, then sprang after the missile.

He raced over the Giant's furry skin, feeling the monster tremble, his ears deafened by the roar of repulsion. The man's fellow were shrinking away from him and at that moment, Sarkin's companion ran up the leg of another.

The place became an immense madhouse as members of the audience stampeded in panic for the exits. Guards ran out upon the stage and one of them shot wildly, wounding an actor. When Sarkin and his companion finally leaped to the ground once more and made their escape their exit went unnoticed.

One of the Giants had discarded his clothes in full view of the unheeding audience and was roaring wildly as his fellows sprayed him with what looked to Sarkin like a great green waterfall, which he knew contained a human-repellent chemical.

The next day the whole theatre was abandoned. "They think it's infested with humans," reported Sarkin to his own Military Council with grim satisfaction.

From then on the campaign swung into high speed. Volunteers were trained by the thousands and sent out in teams to demoralize the Giants. Not all of them had Sarkin's luck. In fact, during the third week of the campaign, overconfidence led to extremely high casualties but the Giants were in a state of panic and the Military Council gave them no chance to recover.

BY the end of a month they had been driven out of the city proper. They sent huge planes over the ground with radioactives but the Council had been prepared for that and had already ordered the evacuation of the city.

A few days after the bombing an advance guard managed to board a supply truck and reach a Giant camp unobserved. Using the tactics Sarkin had devised they drove the Giants out of the air base, then from the rest of the camp.

In no more than four months the campaign was over. The Giants, evacuating by means of great passenger vessels, abandoned the planet. It took them another month to do so and whenever they showed any signs of lagging the Council would stimulate them a bit—but it was clear that they knew themselves defeated. They made no attempt to put up a last-ditch fiight.

Some time later, when they no longer went in fear of the sudden roar of thunder from Giant throats or the great shadows from Giant footsteps, Leta faced her husband across the breakfast table and said, "My hero!"

There was an amused smile on her

face as she said it but deep down she was immensely proud of him and Sarkin felt her pride. He knew that she wouldn't even have minded if he wore his medals and one of these days he thought he'd surprise her by spreading them over his chest when he took her to a concert.

But at the moment he contented himself with saying, "You inspired me, dear. You gave me the clue when you used the word, 'vermin.'"

"And the vermin drove their enemies from the planet."

"Not at all. The vermin were the ones who were driven."

Leta's pretty eyebrows lifted. "Surely the Giants were too large to fall into that category."

"It isn't a matter of size," said Sarkin. "Back in primitive days, on Earth the Mother Planet, our proto-ancestors used a term 'varmint,' a variation of the more general 'vermin.' They applied it to quite large animals."

"Who am I?" asked Leta, "to argue with a man who's studied history?"

"A very pretty woman," he retorted as she expected. "And you've studied more important things than history. However—a varmint was a creature that destroyed. That's why I consider the Giants vermin.

"We were willing to live and let live. They weren't. And in their irrational hatred they wanted to exterminate every living thing in the city outside of themselves. Remember their radioactive clouds?"

Leta nodded.

"People who go in for wholesale extermination have no rights. And that's something for us to remember too. We are justified in killing for the sake of preserving the human race. We have no justification for killing because of blind hatred."

"Of course not," said Leta.

"I'm glad you agree with me. Look at this."

LETA stared in horrified surprise at the thing in his hand and screamed. "Keep it *away* from me. *Step on it!*"

"I'll do nothing of the kind. I'll step away from you so that you may be sure it won't bite or make faces at you. I want you to look at it. Is it really so repulsive?"

Leta looked. She saw a six-legged creature about three inches long. It had a short tail and a round face with small blue markings around the eyes that made it seem to be wearing spectacles with blue lenses.

She said, "*Ugh!*"

"Ugh yourself. It's a very cute animal It's exceedingly tame and dying to be friends. Watch."

He held his hand flat and the creature ran up one sleeve, around his neck and down his other sleeve. When it reached his other hand it chirped interrogatively.

Leta laughed hesitantly.

"Now, honestly, what are you afraid of?"

"I don't know. It's—"

"Nothing of the kind. I've trapped several in my laboratory, made friends with them and studied them. I can't imagine a better and more useful creature to have around the house. It kills small food-spoiling predators, it warns of poison gases, it does a great many other useful things.

"I don't expect you to conquer your fear of it overnight. But get used to the idea that it's a friend. Because it's going to be fashionable. A month from now no home will be complete without one for a pet."

"Honest?" said Leta "It'll really be fashionable?"

Sarkin nodded. A half hour later Leta was letting the friendly little creature eat out of her hand while Sarkin wondered whether those great enemies of theirs, the Giants, had found a home half as good as the one from which their own stupidity had driven them.

"When they might have had us eating out of *their* hands!" he thought with an amusement he didn't consider it advisable to share with Leta.

To die—to live? Charlie Capp could think of only one way to save himself from deep space!

Displaced Person

FOUR of us were standing at the Luna Club's bar drinking *woji* and beating our gums about the war which had ended only a few weeks before.

I knew Walt Hemingway and Leo Harris quite well; they'd both piloted one-man scouts during the trouble with the Martian colony. The other fellow I knew vaguely as Charlie something-or-other. Evidently he'd been a scout pilot, too. I, of course, had been with

By MACK REYNOLDS

the S.T.C., the Space Transport Corps, mostly ferrying war materials and fuel between Earth and the loyal colonies.

As I recall, Walt started the trend in conversation by bringing up the name of some colonel he'd studied under at the Space Cadet School in New Albuquerque.

"Yeah," Leo said, "I remember him. I remember the talk he always gave to a graduating class. Let's see now, it went something like this . . ." Leo frowned importantly, his chubby face trying to assume the granite lines affected by the graduates of the San Diego Academy.

" . . . Men, you of the single-place space scouts must, above all, develop self-reliance. You develop it, or you're sunk.

"You're in space by yourself, alone. You don't dare break radio silence or they'll locate you. If something happens on your patrol, some emergency, some contact with the enemy, you're on your own. *You* have to figure out the answer, there's no superior officer to do your thinking for you. You're the whole works."

Walt Hemingway grinned. "That was the colonel, all right." He took a sip of his highly diluted *woji* and added, reminiscently, "And he was right, of course. Being in the one-man scouts was a matter of using your own wits, your own ability. The fighting you did was the work of an individual, not a team. I guess there's never been anything like it before in the history of warfare."

I shrugged. "Those pilots of the atmosphere pursuit planes back in the 1914-1918 war, they had somewhat the same deal, especially during the first part, before developing group tactics."

Charlie shook his head. "No, there's quite a difference. The airplane pilots went up alone but they were only in the air an hour or two at a time. A pilot of a one-man space scout is out for weeks without contact with his own forces. Some queer deals can come up."

He took a swallow of his drink.

"You ain't just a whistlin' *Terra Forever*," Leo breathed.

Walt looked over at Charlie and said, "What outfit were you with, anyway? I don't seem to place you, but we must've met at one time or another."

"It's a long story," Charlie said. He twisted uncomfortably in his chair.

I said, "How can it be a long story? All he asked was what outfit you were with. Come to think of it, I don't believe I've ever run into you either."

"Okay," Charlie said. "I'll tell you about it."

"Here we go again," Leo said. "A long story. Hey, Sam! Bring us another drink."

* * * * *

LIEUTENANT CHARLES CAPP had been assigned a small sector which thus far in the conflict hadn't seen any activity whatever, and wasn't going to see any in the estimation of his superiors. Probably that was the reason a comparatively green pilot, fresh from the space schools, had been given the patrol.

The first two weeks were uneventful. He was too new at the game to be bored. He did his navigating, his plotting, and his checking carefully, with a schoolroom exactitude of the type that more experienced spacemen scoff at.

When he first spotted the enemy fleet, he thought something had gone wrong with his detectors. In fact, he spent several hours working on them. At the end of that time the detectors still indicated twenty or thirty spots that shouldn't have been there.

Suddenly it hit Charlie that he was picking up a sneak attack on the part of the major portion of the enemy fleet.

He was fairly safe himself. The principal advantage of the one-man space scout is the difficulty in detecting those tiny vermin of the fleet. That is, he was safe as long as he didn't use his radio.

Not that he immediately wanted to. It was something to know that the enemy fleet was on the prowl, but the information was of comparatively little value unless it could be determined where they were headed.

As a matter of fact, Lieutenant Capp was somewhat shocked that they had managed to get this far without detection. Except for him, they were free now to proceed to attack either the Jupiter colonies—Callisto, Ganymede and Io—the Titan base, or even Luna. For that matter, the goal might be Earth herself. A surprise attack of this magnitude might have a decisive effect on the development of the war.

Charlie applied power carefully, and hung on the flanks of the enemy fleet. For the next week he remained there, waiting to get something definite to report. One report was all he was going to be allowed, he realized.

There were twenty-six of them in all. Eight, he decided, must be space monitors, the heavy sluggers of interplanetary conflict. Another eight were cruisers, faster and more lightly armed. The remaining ten were escorts, space escorts with crews of about twenty, and probably the speed to catch him as soon as he broke radio silence. These were the enemy. He had no illusions about his fate; the space escorts would get him eventually.

He became sure, after eight earth days that they were headed for Jupiter. That was understandable. They were probably figuring on cleaning out all three of the colonies in one lightning attack; possibly they expected to get the space base on Europa at the same time they wiped out Ganymede, Io, and Callisto.

It was beginning to get a bit personal. Lieutenant Capp had a favorite sister on Ganymede.

Not that that made any difference in what he did. He knew his job, and he'd known its dangers when he took it. This was it, and he wasn't looking for a way out.

He cut the radio in and said briefly: "Space Scout Capp reporting. Enemy fleet, twenty-six units, heading for Jupiter. Position: Sector K14R; Division 1865; Unit B-18."

The nearest base he might have fled to then was the one on Europa, but he knew better than to try for it. He had one chance, one very small chance, and it didn't involve trying to make a regular base.

CAPP flipped his left control hard over and with his right hand dropped the hot shot lever. He blacked out for long moments under the acceleration.

When his sight came back, after the blood had drained away from his head and eyes, he turned his head around to locate the space escorts which he knew would be after him. They were there, all right, five of them. It was ridiculous that there should be five. One would have been the match of a hundred one-man scouts. Space scouts are just that, scouts. They aren't armed sufficiently to do any real damage.

They were rapidly pulling up to him, cutting the miles to the point where they'd soon be within range.

He was heading straight out into space, and there was nothing nearer than Sirius in this direction.

His lips thinned back over his teeth, and he hit the hot shot lever again with his right hand.

When he came to again he was going at a greater speed than he'd ever experienced before, but it wasn't enough. They were still in the relative position they'd occupied ten minutes before. He applied some rocket power, knowing that they inevitably were doing the same. At least he was staying ahead of them.

Two of them dropped the chase within the next three Terran days. The other three continued after him. Continually he had to expend his rocket fuel to hold his lead. After another week, two of the others dropped back

to return to their fleet. After all, it was ridiculous to have such a force chasing a lone one-man scout.

Two days later, the last of the enemy escorts turned and headed back toward the solar system. Lieutenant Charles Capp didn't understand why at first.

It didn't take him long to discover the reason, however. And when he did, he immediately braked as rapidly as his physical well-being would allow.

His rocket fuel tanks registered almost empty.

Charles Capp was deep, *deep* in space, possibly as far as any man had as yet ventured, and his rocket fuel was gone.

* * * * *

"WELL," Leo Harris said, "all you had to do was give it a couple of hot shots to get back."

Charlie shook his head. "You don't get it. In staying in front of them, I not only had used two hot shots but had used up all my rocket fuel as well. Brother, let me tell you, for that last week or so the velocity at which my scout and that escort behind me were traveling was a caution."

"A couple of hot shots should have brought you back anyway," Walt Hemingway said.

Charlie shrugged. "I figured it all out. I figured it three different ways."

He took a deep drink of his *woji* and motioned to Sam for another round.

"I was a bit over eight billion miles from the solar system," Charlie went on. "All I had in the way of fuel were the hot shots. The way I figured it out, if I used just one shot it would have taken me roughly thirteen years to get back."

"That's a long time," I said philosophically.

He grinned. "Especially in a one-man scout."

Leo Harris said, "Yeah, but using two hot shots would get you there a hundred times as fast. You were—"

Charlie shook his head. "No I wasn't. You see, I'd been in space almost three weeks when I first spotted them. I tagged along on their flank for another eight days and then reported. The escorts chased me another twelve days, so altogether I'd been out about six weeks. The trouble was, my patrol was only to have taken a month in all."

"Holy Wodo!" Walt said. "Your supplies had run out two weeks before you got in this predicament?"

"Not quite," Charlie explained. "I stretched them as far as possible. The pumps were all right so I had air, and, of course, by taking it easy I could almost make out with the water since I was equipped with a distilling-purifier. But the trouble was, my food was all gone and I'd been so long under pressure that I was beginning to notice the symptoms of space cafard. I had to get back quick.

"At any rate, it would've taken me thirteen years with one hot shot, about fifty days with two, and, of course, about twelve hours with three."

Leo grunted, "Yeah, three. That's all you needed, three hot shots. Oh, brother!"

I must have been looking puzzled, because Walt Hemingway explained to me. "You can't give a ship three hot shots one on top of the other. You'd pass the light barrier if you did."

"Oh. Oh yeah," I said. "You'd turn into energy, or something."

Walt shook his head impatiently. "No, that's exploded, that theory."

"Well, anyway," I said, "nobody's ever done it. Nobody's ever exceeded the speed of light."

"But they've given up this theory that if you did you'd be turned into energy," Walt said. "Of course, what would happen to you is probably just as bad."

"Hey, who's telling this story?" Charlie complained.

"Sorry," Walt said.

"Go on, Charlie," Leo told him. "Here you were out in deep space. Your rocket

fuel was all gone and so you had to come in on hot shots. Your grub was all gone, your water low, and it'd take you thirteen years with one hot shot, and fifty days with two. On top of it all, you were coming down with space cafard." The eyes of the chubby little pilot widened. "Hey," he said. "You were in one *kert* of a spot."

"Ummm," Charlie said.

* * * * *

HE EVEN made the mistake of waiting for some hours to be sure the enemy had really turned back. The time wasted made his situation that much the worse.

The wait was unnecessary, of course. The enemy knew good and well that he was done for, that he didn't have a chance. They'd pushed him hard deliberately, knowing that his fuel couldn't last, while they had plenty, knowing that he'd get out beyond the ability to ever get back. It was a more cruel fate than if they'd blown him to bits.

He went over the figures carefully. Time and time again. And time and time again. As the hours slipped by, the space cafard grew upon him. He began to feel the fear of black space, the horror of the emptiness, the terror of being in free fall.

Charles Capp knew the symptoms of mental collapse and could trace their progress in himself, but he had no way of checking them. In a matter of a few Terran days he'd be a raving maniac, unless he was able to get almost immediate medical care, of course.

He pointed the craft toward the solar system, toward the sun, now not much more than a first magnitude star in size. He struck the hot shot lever, and as soon as he had come out of the black out, struck it again. He was heading toward home at the rate of nearly seven million miles per hour, but he knew it wasn't enough.

He could remember the words of the instructors at the schools, and they flooded back to him now. Now, when he needed speed so desperately.

"It's been done time and time again men, and probably it'll be done again. But be sure that it doesn't happen to you. The temptation is there, sure enough. They're pressing you hard and you give your ship a hot shot. They take one, too, and are still right behind you, so you give it another. But so do they. Now, you're in a spot if they're faster than you. You crowd on the rocket power; so do they, and they're still creeping up. That's when the temptation comes, men. You want to reach down and slap that hot shot lever again.

"*Don't do it!*

"Maybe the spot you're in gives you only one chance in a thousand of escaping; but if you give it another hot shot, men, you're gone one thousand times out of a thousand. You can't pass that light barrier, men. Nobody ever has, and there's no reason to believe that anybody ever will. Two hot shots is all any ship can take. Don't give it that third one."

* * * * *

LEO HARRIS said, "What does happen when you pass the light barrier? What is this new theory you were talking about, Walt?"

Walt Hemingway said, "You're thrown into a different space-time continuum."

That was a new one to me. "A different what?" I asked him.

Charlie said, "Listen, do you want me to finish this story or not? I'm nearly to the end."

"Yeah, yeah," Leo told him. "But just a minute, I want to get this straight, first. What's this about a different space-time continuum?"

"Oh, you've heard about it," Walt said impatiently, obviously wanting to hear the rest of Charlie's story. "The theory is that there are other space-

time continuums than ours. You know, other universes, like, existing side by side with ours.

"In fact," he added, "one theory goes so far as to contend that there are an *infinite* number of alternate space-time continuums."

"I'm not following this very well," I said.

WALT turned in my direction. "Well, the idea is that somewhere in all these alternate space-time continuums everything is happening, has happened, and will happen."

"I think I get it," Leo said. "You mean that in some of these other continuums George Washington lost the Revolutionary War and the United States remained British; that Lincoln lost the Civil War in still others."

"That's right. Anything can happen, has happened, is happening, and will happen somewhere in all these endless numbers of alternate universes."

I took another swallow of my *woji*. "What a mind twister that is," I said. "Let's get this now. You mean that there are other space-time continuums so similiar to this one that there are people in it just like me?"

"Sure," Walt said impatiently. "Can't you see that given an *infinite* number of alternate universes, everything would happen *somewhere*. There would be universes in which four guys like us four here would be standing around drinking *woji* in a bar identical to this. Maybe the only difference would be that one of us was wearing a mustache instead of being clean shaven. Maybe there'd be no difference at all. Maybe—"

"All right," Leo said. "We get it." He turned back to Charlie.

"Let's hear the end of this. You're eight billion miles in space and you're coming down with cafard. You've *got* to get back to base within hours or you're sunk. It'll take almost two months by using two hot shots and you haven't got the supplies, even if you weren't sick. If you use three hot shots, you'll be thrown into another space-time continuum.

"Okay. So how did you get home without exceeding the speed of light and being thrown into a different continuum?"

"I didn't," Charlie said.

The three of us blinked at him.

He said, "I told you it would be a long story, explaining how come you didn't know me during the war."

Read "House of Many Worlds," an Astonishing New Novel of Alien Earth by Sam Merwin, Jr., featured in the September issue of our companion science fiction magazine—

STARTLING STORIES

NOW ON SALE—25c AT ALL STANDS

The pyramid was like those of ancient Egypt

Via ASTEROID

By GORDON A. GILES

The following are the reports of the first Earth expedition to Mars—narrating in day-by-day fashion the perils they face, the discoveries they make, their daily lives on an alien planet!

HELLO, Earth! Mars Expedition Number One resuming contact with Earth, via Mars etherline. Seven hundred and ninety-first day. Gillway speaking. Your message requesting code contact, in place of the click-signal, was received yesterday and today I hooked up all available batteries. Hope this is going through to you.

We certainly are overjoyed to establish code contact once again. In fact we went wild when your message came in

Copyright, 1937, by Better Publications, Inc., originally published in Feb., 1938, Thrilling Wonder Stories

yesterday. The Martian year is a long one. We have been once around the Sun while Earth has circled it twice, since we last exchanged messages. Fred Markers has computed that just eleven months ago we were 260,000,000 miles apart. The thought alone was rather frightening.

The 791 Earth-days value is another of Markers' calculations. He requests a check on that—wants to satisfy his own curiosity. He figured that Earth's International Dateline shifted across the Martian meridian twice—at opposition two years ago and at conjunction a year ago. His other values are—740 Earth-days for the time we've been on Mars—721 Martian-days for the same. Thus the coming opposition will occur fifty days from now. Is he right?

There is much to tell. First of all I'll say that the seven of us—Alado is dead—are in good health and feel like native Martians. But we haven't renounced Earth. In fact we are at present busily engaged in manufacturing rocket fuel for the return trip. My last report, made almost two years ago, stated that our ship was a ruined tangle so I will have to explain.

The situation two years ago was this—the ferocious three-foot ant-creatures had besieged us in our clay house and were attacking each day. Proosett and Cruikshank had lost their lives. Our sole defense was the seleno-cell, which we were using to electrocute the enemy. A spark leaped to our ship and exploded our fuel reserves. Thus we seemed faced with doom—we were automatically marooned and hemmed in by a numberless enemy.

I must admit now that I had unwittingly painted the picture darker than it was. For, a week later, the situation had changed. Unaccountably the insects vanished. They simply failed to appear one day though we had seen legions of them in the hills. We never saw them again. Swinerton, our biologist, reasoned that they were similar to the driver-ants of Earth—warring nomads that never stay in one locale but march onward steadily.

They attack and eat all in their way. But our clay house and space-ship were indigestible fortunately. Though they got Proosett and Cruikshank, damn them!

When we were free from the insect menace we found that our space-ship was not as badly damaged as had seemed. More on that tomorrow. My batteries are low.

Can you give us some music? We haven't heard any for two years though Dordeaux plays his guitar well and we struck up a passable quartet—Swinerton, Greaves, Parletti and Captain Atwell.

SEVEN hundred and ninety-second day.

Thanks for the accurate check-up on Markers' figures though it has the doubtful virtue of confirming our belief that we cannot cross during this opposition. We are faced with the hard fact that we cannot possibly manufacture enough fuel for a return trip at any decent speed.

But we're hoping to scrape up enough to get us drifting toward Earth's orbit, to be picked up a year later. That is, on the supposition that our ship will survive the trip, not to mention our supplies and ourselves.

About the ship—the fuel tanks, as you know, were distributed in circular form at the rear, adjacent to the hull. The explosion tore the rear end to shreds. Since that was the end visible to us from the clay house, our impression was that the entire ship had blown up. But when we looked it over, we saw that the forward part, including the fore-engine, was intact. Fortunately all supplies had been removed earlier from the ship to our house.

Captain Atwell promptly announced that we would make repairs. It would be useless to detail just what we did over a period of three months, working with the few tools we had. Using a makeshift

hydro-oxy torch devised by Alado—both gases from our electrolysis plant at the pool—the ruined back part of the ship was shorn away.

A bulwark of scrap metal was built over the unsealed end and welded as carefully as possible. As a further precaution, an inch of tar was coated over all seams. The tar we made from partial combustion of native shrubbery in underground kilns.

There it stands outside the window now, a half-ship. Actually it is two-thirds of its former length. The gyroscope was set up in the ship's mathematical center of gravity so the thing was ready to sail except for one thing—fuel.

That, Captain Atwell said, we would see about. With characteristic foresight he had planned for the future. Not until all that was done and our camp had been thoroughly established, did he allow exploration, which was the main purpose of our expedition. We had been on Mars then fifteen weeks.

As I mentioned yesterday we are at present making the fuel that we hope will take us back to Earth in our half-ship. Yet, a few long months ago we despaired of ever having the fuel.

For it was just two months back that Parletti, with his indefatigable pick and shovel and microscope, found a natural deposit of rich selenium ore not fifty miles from our camp. But that and other details about this all-important manufacturing of fuel will come up later in my reports.

Thanks for the music. Our favorite number was the song dedicated to us, *Moons Over Mars.*

SEVEN hundred and ninety-third day.

After the repair of our ship we had about a month left before the fall season set in. The seasons here, of course, are just twice as long as Earth's.

Captain Atwell picked an exploring party composed of Swinerton, Dordeaux and Parletti. Well-armed, carrying knapsacks of food and canteens of water sufficient for a week's rations, they struck out westward for the nearest canal. The large oxygen tanks strapped on their backs did not bring their total mass to even three-quarters of Earth-weight.

Markers, Greaves, Alado and myself remained behind to keep things going. There was always something to do at camp. The electrolysis plant must be run and tended six hours a day to maintain our oxygen supply. The selenocells must be periodically adjusted or they will overcharge. The Sunpower mirror on the roof must be polished twice a day. This supplies us with the current to heat the clay house.

The rest of the time we amused ourselves playing cards and chess. Now and then we'd go hunting in the bush-wilds of our pool for small game. We have developed quite a taste for the lobster-like steak they furnish, these semi-insectal creatures of Mars.

The party returned in due time, tired and frost-bitten. Captain Atwell was calm but Dordeaux and Parletti were excited. They both poured out simultaneous explanations. Swinerton didn't help by chiming in with the chorus. Atwell shook his head with an amused grin when we turned to him. Evidently he wanted them to tell it.

It was a dozen minutes before their incoherent archeological, geological and biological jargon made any sense. In fact it wasn't until Markers took command, shut them up and had them each speak in turn that the story came out with any degree of clarity.

One of my batteries just faded out. Will repair and continue tomorrow.

SEVEN hundred and ninety-fourth day.

The party reached a canal about a hundred miles west of here after two days of rapid hiking in the light Martian gravity. It looked like the shore of an empty lake at first. But the startling straightness of the shoreline indicated that it was really one of those remark-

able canals that have puzzled Earthmen's eyes since the telescope was invented.

The other bank was not visible. As Earth's astronomers have estimated the canals must be at least fifty miles in width to be visible from Earth.

Starting down the slope and growing ever thicker toward the bottom, was a jungle of dwarfed plant growth. Though they did not investigate it was evident that an appreciable current of water must still be circulating in the center of the enormous canal, enough to give life to this oasis in the surrounding desert land.

They could only gasp at the thought of what a tremendous river must once have swept down that great waterway ages and ages ago. Perhaps all the land we have seen as desert, which is ochre-red in our telescopes, was once irrigated by this amazing sluiceway.

They decided to follow the line of the canal southward for two days. Many forms of life were sighted among the bushes and trees they skirted. Swinerton swears he saw a creature with two heads, one at each end of its body.

The others did not see it but they did see a ten-legged monster a dozen feet across that was like a giant spider. Also a creature that was nothing more than a huge wheel, rolling along with a head in the center.

In explanation—Swinerton reminds us that evolution has had many more ages to produce odd monsters here than on Earth. Yet he says they are just vanishing remnants of what Martian Zoology must have had in its flower a million years ago.

SEVEN hundred and ninety-fifth day. Well, they had to drag Swinerton along by force to keep him from running into the jungle for closer looks and getting trampled on.

The next day Parletti became excited when the shore changed into a cliff and exhibited striations which, to his scientific eye, meant much. He counted them, examined them with binoculars and began to babble about Martian geology.

He declared that Mars had once had oceans as mighty as those of Earth in proportion. Highly saline oceans that must have been rich in gold. This ties up with Greaves' analysis of the desert sand, formerly ocean sediment, which is thick with red gold. Gold is what gives the Red Planet its ruddy color in Earth's telescopes.

Greaves seriously maintains that every time we take a step on Mars we are walking over a dollar's worth of gold! Swinerton subsequently established that even the life of Mars is impregnated with gold. He coagulated a sample of blood with a tin salt from his biological kit and obtained the characteristic iridescent purple of colloidal gold.

To get back to the canal, Parletti estimated the beginnings of life on Mars as three billion years ago! The planet, he says, passed its prime over a billion years ago, when Earth was still a hot restless globe of steaming rocks.

But the man that was most astounded and really stirred with interest was Dordeaux. This happened late that day when they saw something come up over the horizon. It was a broken line of walls and towers glinting in the sharp sunlight. The ruins of an ancient city!

As he told this the four of us who had not been along hung on every syllable. There was nothing so intriguing, so compelling, on this strange new world as the thought of former civilizations.

"Huh!" grunted Dordeaux, eyes snapping, "You fellows wouldn't believe me when I said I had seen those ruins from our space-ship while we were landing. Now who's right?"

As a matter of fact we had kidded him an awful lot about it, taking nothing for granted. But we were just as thrilled as he was to hear the news. For it was the first definite proof of another intelligent race in the Solar System besides Earth's.

The party reached the city-ruin th

next morning and investigated its hoary lichen-covered remnants. Not much remained beyond broken eroded walls of stone and general debris of rock and heavy dust. However, they could make out the general plan of the huge city, built much like an Earthly city in squares.

Numerous bas-reliefs showed clearly that physically the Martians had been more insect than animal, with wide wings. The early heavy atmosphere, coupled with the light gravity, had made flying a natural attribute of life.

Captain Atwell had to keep a sharp eye on Dordeaux. His archeological instincts were fully aroused and all others submerged. He was liable to dart off any second to examine some new thing that caught his eye. No wonder—here he was in a complete new world of archeology, uncatalogued, mysterious, alien. His enthusiasm was so contagious that it fired us all as we listened to him.

At any rate the grandest thing of all was discovered later that day as the four stood at the canal bank's edge. Broken edges of a smooth wide sheet of metal speared up from the canal bottom, caked with ages of rust.

At once it was apparent that it was a section of what had been a tremendous pipe, fitted into the canal and as wide! The Martians had undoubtedly used a pump of some kind to move the water from the poles along that pipe. The water itself would never have flowed uphill in the canals from the depressed poles.

Dordeaux pictured for us the colossal engineering achievement of a network of canals all over Mars. Giant pumping stations such as this one every few hundred miles. Millions of square miles of parched land irrigated. A dying world made fit for life long after its prime. A heroic struggle against the inevitable. And now this, the shards of civilization!

Dordeaux, from careful microscopic examination of rocks and bones, has since come to the conclusion that that city, and perhaps all the others, had been flourishing not more than fifty thousand years ago!

SEVEN hundred and ninety-sixth day.

Those were the results of the first exploration away from our immediate vicinity. Dordeaux maintains that it is not unreasonable to suppose Martians are surviving today. Perhaps some few groups have managed to withstand the rigors of cold near the poles and live near their plentiful water supply. We all agree it is possible.

Another trip was made to the canal. This time Markers brought his photographic equipment along. They came back with several hundred excellent views of the canal, city, animal life and geological formations.

The home staff of scientists will find these pictures highly interesting—if we ever get back with them. Markers also took a hundred feet of moving film, photographing the city from the highest broken wall he was able to clamber.

Thanks for the program dedicated to us yesterday. Particularly give our thanks and appreciation to President Mason for his fine inspiring speech. We feel a little guilty about all the praise and eulogy he heaped on us. We don't consider ourselves "cosmic heroes," President Mason, but we like the words anyway!

SEVEN hundred and ninety-seventh day.

No more explorations have been made since the fall and winter set in. And what a winter! The highest temperature we recorded in six months was 20 below zero. Once it dropped to a record low of 120 below.

During that time we stayed in our clay house, venturing out only to perform the necessary chores of readjusting the seleno-cells, polishing the sun-mirror on the roof, hauling ice from the pool for the electrolytic plant, et cetera.

Captain Atwell took a regular part in this and all other things. He is the one, we unanimously agree, who should get

credit for all our success. A leader and a man!

There was no snow, of course, but at times during the coldest snaps a light frost coated our windows—of crystallized carbon dioxide! Windstorms that lashed sand against our walls rose at frequent intervals but never lasted more than a day.

We were quite snug in our sturdy clay house, our heater supplied by the current of the sun-mirror. But during the coldest spell, when old Sol was lowest on the horizon and our mirror did not build up much charge, we had to put on our heaviest clothes to offset the freezing temperature in our house. Even our drinking water froze for three days. We had to warm our protein-sticks next to our skins before eating them.

Greaves came in once with a badly frozen pair of feet, tending the electrolysis outfit. He had been out only an hour. Atwell had us take fifteen-minute shifts on our outside chores after that.

Greaves was well taken care of by Parletti but lost two toes. However, that extreme spell lasted only seventeen days. The rest of the time it was more like a severe Arctic winter on Earth.

Monotony set in with the winter, of course. We would have given our souls at times for music or even an advertiser's voice from Earth. We played games until we were sick of them.

A rotating game of bridge was begun and lasted for almost a month between the eight of us.

Nobody won though the rubbers ran into three digits. The law of averages evened everything up over that long stretch. We then paired off with permanent partners. Alado and Swinerton ran up so many points in two months that, if paid off at a thousandth of a cent a point, they would have owned us, lock, stock and barrel.

Alado chuckled at his winnings. "By glory," he said, "when we get back to Earth we ought to challenge the Culbertsons, eh, Swinny?"

Quarrels arose, an inevitability. Yet they never became bitter or prolonged. The feeling of being alone on an alien world knitted us together like brothers. Our strict system of share-and-share alike, under the iron discipline of Captain Atwell, gave no permanent grounds for differences.

We celebrated Christmas and New Year's by singing all the appropriate hymns and songs we knew, accompanied by Dordeaux' guitar, and having a feast of an extra bowl of hot bouillon each. We celebrated the Fourth of July too before the long Martian winter was over!

SEVEN hundred and ninety-eighth day.

A waterless thaw came with the rise of the Sun toward the zenith. The daily temperatures began to average around zero. We were able to go out and relieve our cramped muscles in short hikes.

It was at this time that we talked over the fuel question seriously. We had been afraid to before that. Our only hope, of course, was to find a supply of selenium. Greaves promised to extract it from the ore if some ore were found.

Captain Atwell commissioned two search parties to make constant explorations in all directions. Paretti, Swinerton and Alado were one. Doreaux, Greaves and himself made up the other. As soon as weather permitted his plan was carried into operation.

Each party leader was to make tests of underlying soil every mile, carrying along small chemical kits for flash tests. The others were free to catalogue any other phenomena on the way, if it did not mean too much delay.

Atwell had worked out a system of routes and directions which made it simple to survey new territory every time. The constant sun and strange but true compass that had a north pole in the east with their guides. In all, the two parties made a total of sixteen one-week and ten two-week treks into the surrounding territory in a period of nine months.

It was during one of these trips that

Alado came down with inflamed lungs. He was put to bed and nursed carefully but pneumonia set in. He was dead a week later. Not a hero's death but he died with a smile. His last words, with his eyes fixed on the brilliant evening star, were simply, "Good-by, Earth!"

We buried him at night under the two moons of Mars. We will not broadcast tomorrow in his memory.

EIGHT hundredth day.

Opposition time is drawing near. How we would like to cross at this time! Yet we won't be able to do it. We will have barely enough homemade fuel, crude and inefficient, to drag the ship away from Mars and set up a drift Sunward. We will have to time it just right or we will miss Earth next year.

We are not trying to fool ourselves. Our chances of a successful navigation with a half-ship and crude fuel are small. Most of all it will be a close race between time and oxygen starvation for that year-long trip.

But we can't stay on Mars either. Our preserved food supply is running short. We could never live on what we hunt—our ammunition is almost gone. Even our Sunpower units are beginning to balk and they are the only thing between us and freezing on this cold, cold planet.

So we will have to take our chances in our half-ship.

It was nine months ago that the two exploring parties began to range over our surrounding territory, searching for selenium.

Markers and I, who were left in camp all this time, had enough to do to keep us going from dawn until dark. But Markers, with energy enough for two men, found time to make careful observations through his four-inch telescope on the roof.

He has discovered two new moons of Jupiter, tiny far-flung ones. Also one for Saturn and even one for Pluto. He says the thin air makes telescopic observation on Mars ideal.

He has made complete records and computed orbits of the moons and of the eleven new asteroids he had charted. He spent most of his time with the asteroids. He is especially interested in the one called Anteros, which he says has a very eccentric orbit. He has worked its orbit out to seven decimal places.

Several times he had me look through his tube at the beautiful sights of Jupiter with its colored bands and Saturn with its remarkable rings. But the sight that fascinated me most was that of Earth itself, a green-gold half-sphere with bright cusps.

The north polar cap sparkled like a diamond and most of the surface was covered by a filmy gauze of white clouds. But through it could be seen the continents and oceans, so familiar that they made me choke.

This is perhaps unbelievable but the city of Chicago is visible as a tiny pinpoint of light. I saw it just as that longitude of the American Continent swung past the terminator from light to dark.

Chicago, from this distance, seems to lie in a great dark hollow edged by shimmering-white Lake Michigan. Just as it swings into its sunset the lake becomes utterly black and the hollow blacker—and the city flames out like a tiny jewel.

Markers, who is from Chicago, looked when I pointed it out. Then he walked away and didn't say much for the next hour. But then nostalgia has hit us all pretty hard.

One other man-made landmark is visible, the Great Chinese wall. It appears as a winding silver thread over the dark mountains of Mongolia.

Markers and I had a scare once. In the middle of the day we heard a loud explosive noise from outside. We put on heavy clothes and air-helmets and ran out. It was the electrolytic outfit down by the pool. A leak had allowed oxygen and hydrogen to accumulate in an explosive mixture. A spark had set it off. Much of the glass tubing had been shattered.

Having just sent the two expeditions

out with all our surplus oxygen we were faced with an immediate shortage of that gas for ourselves. We set to work like demons. Markers, an all-around expert in any laboratory, blew the necessary tubing and I helped as much as I could in setting it in place. It was an all-day job. For the last three hours we breathed and lived in Martian air, having run out of oxygen.

Both of us came down with heavy bronchial colds that night. We drank boiling-hot—138 degrees on Mars—water and wrapped ourselves up with blankets to brink on a sweat. A week later, when Parletti's party returned, we were still weak and feverish. Parletti, changing from geologist to doctor, nursed us out of it.

That was how close we played the game with death at times.

EIGHT hundred and first day.

As a brief summary of what the two search parties found in their constant exploration I'll mention first the strange desert crypt that Atwell, Dordeaux and Greaves came across to the east.

It was a pyramid so similar to those of ancient Egypt that they thought they were having hallucinations. Dordeaux fell to his knees in the sand and almost fainted. The whole thing was a puzzle. The inscriptions around the base were unlike those of the Egyptians but had a haunting familiarity.

There was no way to enter it. Dordeaux would just as soon have begun hacking away with his pick but Atwell emphatically vetoed the idea. Pictures were taken of the inscriptions for analysis on Earth.

Dordeaux raves—it is the only correct word—about a Martian visitation to Earth only ten thousand years ago. It remains a mystery. Perhaps it will be cleared up in the future by other explorers with the necessary equipment to enter the crypt—if crypt it is.

If that is startling, what about the other party finding in the ruins of a canal city a perfect representation of Neanderthal Man of Earth? It cannot be of the Martian race for they are or were insectal. Does it mean that Mars once had a humanoid race, which vied with the intelligent insects that built the canal system? Or that the Martians visited the Earth before the dawn of our history?

Swinerton, as anthropologist, has complete pictures of and voluminous notes on this find. He is saving them for leisurely examination on Earth.

EIGHT hundred and second day.

The most important find of all, of course, was Parletti's, just over two months ago. His spade turned up a rich ore of selenium fifty miles from camp. All other pursuits were immediately abandoned. Greaves made his analysis and, with the collaboration of Markers and the whole-hearted help of the rest of us, set up a plant to manufacture fuel.

His method was simply chlorination of the ore, producing selenium tetrachloride, a heavy liquid that can be separated from the by-products mechanically. Chlorine came from electrolysis of brine —the brine from our salt pool.

The tetrachloride was treated with water, producing selenium oxychloride, which is perhaps the most active liquid known next to the fluorine compounds —and the fuel whose powerful explosions bring life to rocket engines.

We have been working like slaves. Parletti was stationed at the ore deposit to dig up the hard rocklike material as fast as he could. Atwell and myself, the two heaviest men, made the treks back and forth, dragging the ore along in a huge canvas toboggan.

At the camp Swinerton pounds the ore with a large mallet, making it fine-grained. Greaves then gets it and dumps it into his chlorination vat. Markers tends the electrolytic outfit that produces chlorine.

How fortunate that Mars is a dry world without clouds or rain. One day without the energy of the Sun to give us

electrical power and we would be lost!

Greaves' complicated chemical manipulations finally produced the fuming yellow liquid that Dordeaux carefully pours into valveless oxygen tanks and stores in the ship.

For six weeks now we have been working eighteen hours a day at this project. We have made a gallon of fuel a day. Just today Parletti limped into camp, cold and aching from his labors, and announced that the selenium deposit had run out. The remaining ore is poor and useless for our purpose.

Make it or break it, we will have to get along on what fuel we have. It is barely enough, Markers computes, to get us away from Mars and set us on a slow crawl toward Earth's orbit.

Markers has a strange gleam in his eyes, and has had for days. Atwell is watching him carefully. I didn't think Markers was the type to break down, but it looks that way.

EIGHT hundred and third day.

Markers speaking! We will cross during this opposition! By some cosmic chance the asteroid Anteros will pass no more than five million miles back of Mars ten days from now. We can build up a speed of five miles per second and meet it. Allowing it to sweep by our ship closely, we will be caught in its gravitational field and take up an orbit—providing our ship stands the strain.

Anteros has an extremely eccentric orbit, more so even than Eros. Some decades ago, I forget just when, it passed within a million miles of Earth, nearer than any celestial body except the Moon. My calculations show that it will repeat this maneuver at this opposition, passing within one and a half million miles of Earth.

Riding the asteroid from Mars to Earth, we will be able to escape Anteros at the proper moment and fall to Earth's Moon. If we have fuel enough we will attempt a landing on Earth itself, al-

[*Turn page*]

"Which of these 2 one time WEAKLINGS PAID only a Few Cents to become an All-Around HE-MAN at Home!"

Larry Campbell — Rex Ferrus

WHICH ONE PAID HUNDREDS OF DOLLARS TO TRAIN AT MY SIDE?

Rex Ferrus mailed a coupon and paid only a few cents. Larry Campbell paid me hundreds of dollars.

LET ME PROVE I CAN MAKE YOU TOO an "ALL-AROUND HE-MAN FAST — or it won't cost you a cent —

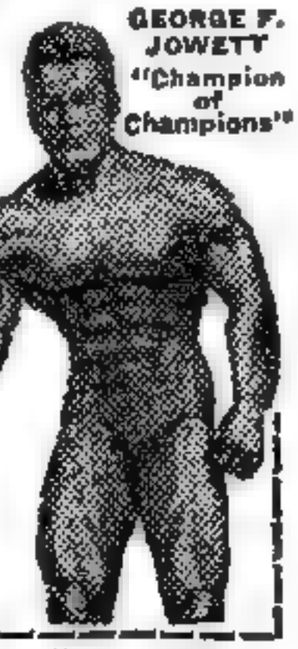
says George F. Jowett—
World's Greatest Body Builder

Just as I did Rex Ferrus, I'll teach you, at home, the "Progressive Power Method" through which I rebuilt myself from a wreck at 15, to holder of more strength records than any other living teacher!

BUILD A BODY YOU WILL BE PROUD OF . . .

Send only 10c for my 5 easy-to-follow, picture-packed courses now in 1 volume, "How to Become a Muscular He-Man."

10 DAY TRIAL! IF these 5 courses do not PRODUCE results in ONE WEEK, send them back and I'll return your dime.



GEORGE F. JOWETT "Champion of Champions"

FREE! Jowett's Photo Book of Famous Strong Men!

JOWETT INSTITUTE, Dept. TF-19
230 Fifth Avenue, New York 1, N. Y.

Dear George: Please mail to me prepaid FREE Jowett's Photo Book of Strong Men, plus all 5 Muscle Building Courses, "How to Become a Muscular He-Man." ENCLOSED FIND 10c in complete payment for EVERYTHING.

NAME ..... AGE ....
(Please Print Plainly. Include Zone Number)
ADDRESS ..... NO C.O.D.'s
CITY ..... ZONE & STATE .....

IMMEDIATE and highly effective RELIEF for COLD SORES FEVER BLISTERS and CHAPPED LIPS

Available at all leading drug and department stores. Only 35¢

QUIT TOBACCO!

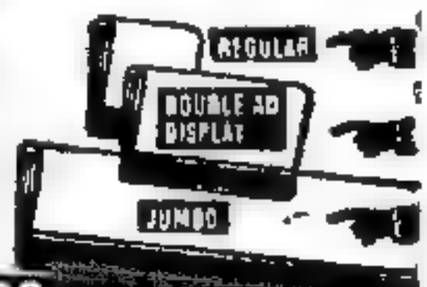
Remove all tobacco craving safe in every form and join the thousands who have completely obtained satisfactory freedom from tobacco with the old genuine TOBACCO BANISHER. Send for FREE BOOKLET describing the ill effects of tobacco, and a safe reliable home treatment. A proven success for 39 years.

GUSTAF H. GUSTAFSON CO.
2325 E. Vickery Blvd. Dept. TF. Ft. Worth 3, Texas

MAKE EXTRA MONEY

EVERY BUSINESS EVERYWHERE USES UNION LABEL BOOK MATCHES

No experience needed to earn big daily commissions. Be a direct factory representative of the world's largest exclusive UNION LABEL Book Match manufacturer. Prospects everywhere. Feature Glamour Girls, Hillbillies, scenics and dozens of other styles—Double Books—Jumbo Books—nearly 100 color combinations. New, bigger portfolio makes this fastest selling line a real profit maker for you. Write TODAY for full details.



SUPERIOR MATCH CO.
Dept. R-951, 7528 S. Greenwood Ave., Chicago 19, Illinois
West Coast Salesmen, write Box 1087, San Jose, Calif.

SEE the World in Pictures

in America's Most

ENTERTAINING

Picture Magazine!

Packed with Fascinating

Photos and Features

●

Now on Sale—Only 15c Per Copy

A Wealth of

FUN FOR EVERYBODY

in

BEST CROSSWORD PUZZLES

VARIETY CROSSWORD PUZZLES

and

POPULAR CROSSWORD PUZZLES

●

ON SALE AT ALL NEWSSTANDS!

though since Anteros will pass in front of Earth in its orbit Earth will bear down on us at its orbital speed of fifteen miles per second.

However, the Moon will be receding at the time, lessening the speed of her approach to our ship to nine miles a second. We can more easily take up an orbit around the Moon without danger of being burned up in an atmosphere such as Earth has.

Captain Atwell speaking! We will ride the asteroid Anteros as Markers has explained. It is perhaps a dangerous experiment but a lesser evil than drifting in space for a year and that is a lesser danger, in turn, than staying on Mars.

We shall be circling the Moon, if all goes well, forty days from now. We shall contact you at that time by etherline and plan a landing at some known Lunar location, where we will wait for a rescue ship.

Gillway speaking. Markers had that plan in his mind for months, ever since he caught Anteros in his telescope and plotted its course. He exploded the news like a bombshell this morning. We all became madmen for hours. Then we set about seriously to plan our strange trip via asteroid.

We shall leave tomorrow morning. I will not be able to broadcast again until we have safely hooked our ship in an orbit around Anteros, ten days from now, as all available battery power will be needed for the gyroscope. *Au revoir.* Mars Expedition signing off at Mars.

EIGHT hundred and thirteenth day.

We have succeeded! We are circling Anteros! The ship is bearing up nicely. All else is well. Markers says the worst is yet to come. The landing on the Moon or on Earth itself will be hazardous. But we have something of a fuel reserve and plenty of hope and courage.

Will not broadcast again until near Earth a month from now, as the Sunpower mirror has gone dead and my batteries are low. Mars Expedition Number One signing off.

COSMIC ENCORES

(Continued from page 6)

some parts of the world still is a backbone of faith

A Bow of Gratitude

Astrology's other use was and is judicial—attempting to reveal to humans by the position of stars and planets at the exact moment of their birth what course their lives will follow. It is this that is its present chief employment in America and the rest of the Western world today.

Whether or not you believe in it several million Ameircan citizens do—or at least follow its dictates when difficult decisions must be made. As the late Evangeline Adams and her top-drawer astrological successors have revealed, their clients include surprising numbers of highly responsible men and women of important affairs—industrialists, financial magnates, manufacturers, department store moguls and the like.

It is in the field of judicial astrology that we think all of us should give the ancient science a bow of gratitude, whether we have faith in its findings or regard them as so much spinach. It has done and is doing us service of considerable importance.

A disease that has inflicted men in high places since high places first existed in human society is difficulty in reaching decisions. For most of us this difficulty increases in direct ratio to our importance. The higher we go the more people are affected by every yes or no we utter during working hours, the more goods are at stake, the more money can be lost.

Thus many folks on whom scores, hundreds or even thousands depend for their welfare ultimately attain a state in which they are incapable of making any decision promptly, sometimes cannot make any at all. There are too many factors to be weighed before determining upon a policy, too much to consider. Basic issues become fogged in a welter of detail and responsibility for possible loss.

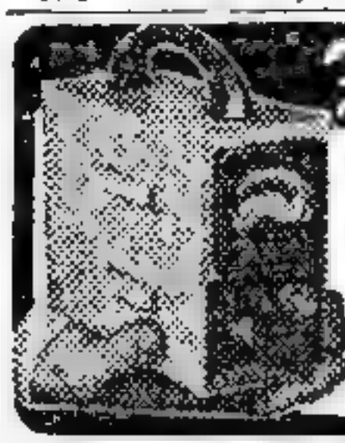
Decisions Are Important

In the great majority of cases where a decision must be made no decision is worse than a wrong one. Stasis is against all the laws of nature—and the intelligent man or woman in

[*Turn page*]

High School Course at Home
Many Finish in 2 Years
Go as rapidly as your time and abilities permit. Course equivalent to resident school work— prepares for college entrance exams. Standard H. S. texts supplied. Diploma. Credit for H. S. subjects already completed. Single subjects if desired. High school education is very important for advancement in business and industry and socially. Don't be handicapped all your life. Be a High School graduate. Start your training now. Free Bulletin on request. No obligation.
AMERICAN SCHOOL, Dept. H-658, Drexel at 58th, Chicago 37

Be a DETECTIVE
A CHALLENGE FROM WASHINGTON D.C.!
Help Stop Crime! Train at home. Earn big money. Amazing training course from the NATIONS CAPITOL (center of law enforcement) by former U.S. GOVT. AGENT and NAVAL INTELLIGENCE Officer exposes actual methods used by Criminals. Write for FREE BOOK. State age.
INTERNATIONAL DETECTIVE TRAINING SCHOOL
1701 Monroe St., N.E. Dept. 199 Washington 18, D. C.


Find HIDDEN TREASURES
GEIGER COUNTERS for Uranium Detection (see at left). TREASURE DETECTORS for gold, silver, etc. Light-weight, ultra sensitive. None finer at ANY PRICE. New Models available.
INFORMATION FREE
Detectron CO. Dept. TP-9
5631 Cahuenga, No. Hollywood, Calif.

FREE—Amazing Book on RHEUMATISM, ARTHRITIS
If you suffer the aches, pains and discomforts of Rheumatism, as manifested in ARTHRITIS, NEURITIS, SCIATICA or LUMBAGO, send today for the FREE Book. It reveals important facts about why drugs and medicine give only temporary relief without removing causes. Explains fully a proven, specialized system of treatment that may save you years of distress. No obligation. Write for this FREE Book today!
BALL CLINIC, Dept. 504, Excelsior Springs, Mo.

OLD LEG SORES
Easy to use Viscose Application. Heals many old leg sores caused by leg congestion, varicose veins, swollen legs and injuries or no cost for trial if it fails to show results in 10 days. Describe your trouble and get a FREE BOOK.
T. G. VISCOSE COMPANY
140 N. Dearborn St. Chicago 2, Ill.

Free Yourself FROM Tobacco Habit
If you want to stop smoking and just can't, try world-famous NO-TO-BAC Lozenges. See how quickly NO-TO-BAC may help stop your craving for tobacco. Don't wait! Rush $1 to NO-TO-BAC, for 7 days supply. If you can quit for 7 days, you've won half the battle. Satisfaction guaranteed or money back. Write:
NO-TO-BAC CO.
DEPT. S, HEWLETT, NEW YORK

YOUR DAILY HOROSCOPE
in Every Issue of
EVERYDAY ASTROLOGY
★ NOW ON SALE-25c *At All Stands*

a position of responsibility of course knows that even when a decision seems impossible.

Faced by such stasis in the face of a decision some of us flip coins or pluck daisy petals or may even hold buttercups under our chin. Others duck out the rear entrance and head for the nearest reliable astrologer. And from the star charts of the latter a course of action is worked out.

Hence astrology, however decried by its upstart juniors in the field of science, fulfills a far from marginal function in our current unhierarchal society, as it is now functioning for our big radio broadcasting networks.

More than once it has occurred to us to wonder how many of the scientists who snort scornfully when the word is mentioned have had to fight the urge to consult an astrologer when faced with divergent paths of action. Or how many of them have lost their battles and done so?

OUR NEXT ISSUE

LAST summer FSM left Sir Harry Brunton and his bride, Charlotte Carter of Cartersville, Virginia, still in the amazing underground nation of the Conquerors, who had not only rendered the southeastern U. S. uninhabitable but were cold-bloodedly determined to destroy humanity until Sir Harry bluffed them into a reprieve.

In our Winter issue Dr. David H. Keller tells you what followed when the little supermen with the big heads took off on their long-planned experimental migration to Venus. EVENING STAR is brilliant space opera of an early day in science fiction, is regarded by Dr. Keller and ourselves as even superior to THE CONQUERORS, whose sequel it is.

For it is on Venus that the tides of conflict, so barely dammed in the first of the dualogy, burst forth into flaming action. Here the self-styled Conquerors find themselves battling a savage and primitive environment that threatens to engulf them by its very rawness—and here they come up against survivors of a race as far beyond them as they are of ordinary homo sapiens.

Employing every twist of fortune on the alien planet to his best advantage, the veteran anthropologist fights a fantastic one-man war, not only to ensure survival for his bride and himself but to make humanity's reprieve, back on distant Earth, a permanent one.

This is Dr. Keller at his peak—sardonic, sage of plot, inventive and a master of drama and suspense. EVENING STAR comes from across a broad span in time—but it is a story that will never date.

With it, of course, in our Winter issue, will be a stellar escort of short stories and novelets, both old and new, which should help to make the inaugural FSM for 1952 the type of pageant of science fiction down the past two and a half decades this magazine purports to represent. We are commencing our third year with by far the strongest lineup of stories we have had over a twelve-month period to date.

LETTERS FROM OUR READERS

WE HAVE a trio of epistles that for various reasons seem to us either entertaining or provocative. The opener belongs definitely in the first of these categories.

PLAGUE OF LOCUST
by Charles E. Knack

Dear Sir: This clipping is for your consideration. I think the information it contains is of interest to you and your readers. It is from the Detroit *Free Press.*

When the parents of Ellen Phillips bought a pound of frozen spinach, they found a frozen locust in it. Ellen put the locust in a jar and brought it to Robert Young, seventh grade science teacher at the Lindbergh School in Dearborn. The locust promptly thawed out and began jumping about and began eating food supplied by the science students.—*223 North Broad Street, Adrian, Michigan.*

Frozen food, no doubt, no doubt.

SECONDS
by Donald V. Allgeier

Dear Sir: I'd like to second some of Bob Silverberg's ideas in your latest readers' column. I've asked before for those fine stories: "Electropolis" and "Brood of Helios." You couldn't make better choices for novels.

How about it?

As for the annual, I admit I'm disappointed this time. Oh, I like "Twice in Time" all right. But I feel very strongly that the annual, at least, ought to stick to stories printed in the Gernsback era of the magazine until the best ones are gone. Why do you have such an aversion to going back very far when you keep editorializing about the value of seeing how we got this way—of the historical interest of the old stories?

Glad to see "Via the Hewitt Ray" coming up. Why not use some more women writers—such as

Lilith Lorraine, Leslie F. Stone, Clare Winger Harris?

I'm still hoping to see works of Harl Vincent, Miles J. Breuer, D. H. Keller, Hendrick Dahl Juve, A. G. Stangland, Nat Schachner, Laurence Manning, Francis Flagg, D. D. Sharp, and other oldies. (Oh, I know you've used a few of these.) And I'm still rooting—just for the laughs—for a reprint of "Why the Heavens Fell" by Epaminondas T. Snooks, D. T. G.

Meanwhile, I'm very happy over your choice of the Keller novel for the next issue. Keep the mags coming.—*San Marcos, Texas.*

Donald, thanks for the suggestions. A couple of the yarns you mention seemed to us to date pretty badly when we read them—but perhaps they will turn up in time. As to your insistence we stick only to Gernsback leads in the annual —well, perhaps you and a couple of thousand other fans still reading stf are acquainted with those early novels in SS.

But FSM is not being published for fans—it is being published to make them. And anyone acquainted with stf ten years ago is already with us. We shall try to run the best we can dig out of the old files—but our limit has been and still is ten years. We'll go back twenty or further when we uncover what seems like a readable story but we aren't holding ourselves that far back.

Hope you like EVENING STAR as much as you expected to like THE CONQUERORS when you wrote the letter. And we'll keep an orb out for the D.T.G. thing.

CONTRADICTION
by Edward G. Seibel

Dear Editor: Since you wish to hear from your fans concerning the Weinbaum tales (FSM, Spring, p. 144, the Hoskins letter) here I am. I've only read one of his stories and it was wonderful. I've always wanted to read more so a whole magazine-ful of Weinbaum for a nominal sum certainly has my vote.

In regard to Wood's letter (p. 146) I can't help agreeing with him that it would be better not to change events in order to make the old stories more up to date. In your COSMIC ENCORES I detected a faint contradiction to the answer you gave Wood. I quote—"It is possible therefore at least in part to check the prophetic accuracy of authors to whom World War Two was the thin-

[*Turn page*]

Join the Red Cross

PINT PARADE

—and Save a Life!

MAKE MONEY WITH FREE STOCKING

Earn steady extra cash writing orders for amazing Kendex nylons that are replaced FREE if they run or snag within guarantee period! Not sold in stores. Nationally advertised. Complete line, including sheerest 15 denier 51 and 60 gauge. No experience needed. Just show free stocking. We deliver and collect. Advance cash plus big bonus. Send your name and address on postcard. We'll rush you complete money-making outfit (including free sample stocking) free and prepaid. No obligation. Nothing to pay now or later.

KENDEX CORP., BABYLON 443, N.Y.

SEND FOR THIS FREE!

Make money. Know how to break and train horses. *Write today for this book FREE*, together with special offer of a course in Animal Breeding. If you are interested in Gaiting and Riding the saddle horse, check here ( ) *Do it today—now.*

BEERY SCHOOL OF HORSEMANSHIP
Dept. 829 Pleasant Hill, Ohio

Free for Asthma

If you suffer with attacks of Asthma and choke and gasp for breath, if restful sleep is difficult because of the struggle to breathe, don't fail to send at once to the Frontier Asthma Company for a FREE trial of the FRONTIER ASTHMA MEDICINE, a preparation for temporary symptomatic relief of paroxysms of Bronchial Asthma. No matter where you live or whether you have faith in any medicine under the sun, send today for this free trial. It will cost you nothing.

FRONTIER ASTHMA CO. 70-J FRONTIER BLDG.
462 NIAGARA ST. BUFFALO 1, N. Y.

RUPTURE

RELIEF...OR YOUR MONEY BACK
Simple, easy to wear truss made by old surgical house. *You* risk nothing. Write for free booklet. Don't delay.

WEB TRUSS CO. Dept. TF-9 Hagerstown, Md.

STOP TOBACCO?

Banish the craving for tobacco as thousands have with Tobacco Redeemer. Write for free booklet telling of injurious effect of tobacco and of a treatment which has relieved many men.

In Business Since 1909
300,000 Satisfied Customers
THE NEWELL COMPANY
153 Clayton Sta., St. Louis 5, Mo.

FREE BOOK

Read the Best Westerns and Mysteries in

POPULAR LIBRARY Editions

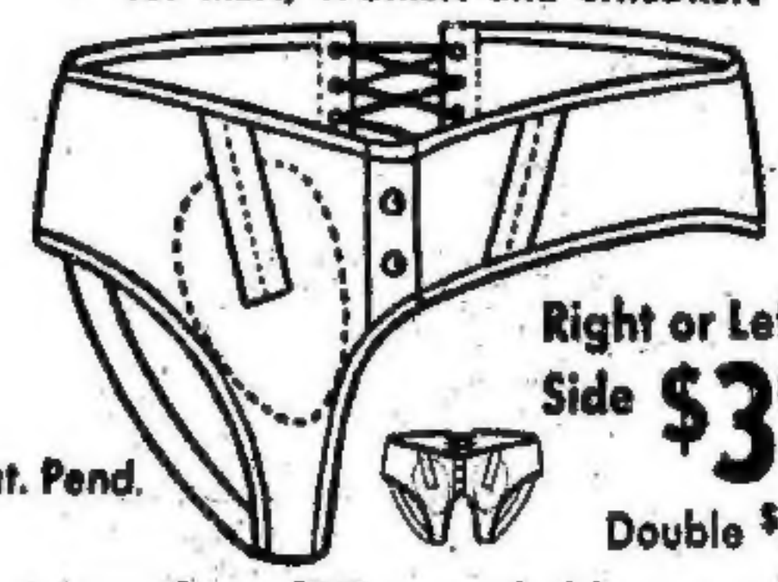
"Books of Proven Merit"—Only 25c Each!

Immediate Comfort And Relief for You with

RUPTURE-EASER

(A PIPER BRACE PRODUCT)

for MEN, WOMEN and CHILDREN



Pat. Pend.

Right or Left Side $3.95

Double $4.95

A strong, form fitting washable support designed to give you relief and comfort. Adjustable back-lacing and adjustable leg straps. Snaps up in front. Soft flat groin pad—NO STEEL OR LEATHER BANDS. Unexcelled for comfort, INVISIBLE UNDER LIGHT CLOTHING. Washable. Also used as after operation support.

- **THE MOST EFFECTIVE HERNIA SUPPORT.** Thousands of people who have tried old-fashioned, expensive devices turn to Rupture-Easer for new comfort.
- **RUPTURE-EASER IS SANITARY.** Can be washed without harm to fabric—you never offend when you wear Rupture-Easer.
- **NO FITTING REQUIRED.** Just measure around the lowest part of the abdomen and specify right or left side or double.

Over 250,000 Grateful Users

R. C. of Corvallis, Oregon, Air Mails: *"Send me another Rupture-Easer so I will have one to change off with. It is enabling me to work at top speed at my press machine 8 hours a day."*

M. S. of Anderson, Ind., thanks us and says: *"It is one of the finest things I have ever worn and has made my life worth living. It has given me untold ease and comfort."*

O. B. R. of Boston: *"Send me another . . . I wish to say to everyone who suffers as I did, 'Oh what relief I have found from its help!' "*

Blessed Relief Day and Night—You can sleep in it—you can work in it—you can bathe in it.

10-DAY TRIAL OFFER

Money-back guarantee if you don't get relief.
Piper Brace Company, Dept. TF-91
811 Wyandotte, Kansas City 6, Mo.

PIPER BRACE CO., DEPT. TF-91
811 Wyandotte, Kansas City 6, Mo.
Please send my RUPTURE-EASER by return mail.

Right Side	☐ $3.95	Measure around lowest part of
Left Side	☐ $3.95	my abdomen
Double	☐ $4.95	is ....INCHES.

(Note: Be sure to give Size and Side when ordering.)
We Prepay Postage except on C.O.D.'s.
Enclosed is: ☐ Money Order ☐ Check for $_____ ☐ Send C.O.D.

Name.....

Address.....

City and State.....

RUSH THIS COUPON NOW!

nest of phantoms in an era of economic hardship or who sincerely believed such a military upheaval as we have just survived and are currently enduring could not occur in a League of Nations world. Even these authors' mistakes provide fascinating evidence of the unpredictability of what lies ahead for all of us."

How do you expect us to do that if you insist on changing the historical content of a story merely to make it more readable?—*P. O. Box #445, Olivehurst, California.*

Answer—we have made darned few such changes in any of the oldies that have to date appeared in this magazine or the annual. There *was* that Bikini bathing-suit episode in an early issue but the outcry was sufficient to put five-wheel brakes on any urge to tinker while editing with a view toward modernization. Perhaps you got one of the new stories confused with the old ones—remember we do run both. If not we are at fault and can but hang our heads in shame and vow in chorus that it shall not happen again (we hope).

So the Encores are ended once again. We'll be back come December to thaw out another locust. Until then, good reading in stf.

—THE EDITOR.

Two Brilliant New Novels!

•

ALARM REACTION

by

RAYMOND F. JONES

and

EARTHLIGHT

by ARTHUR C. CLARKE

featured in the August

THRILLING WONDER STORIES

•

NOW ON SALE—25c AT ALL STANDS

131-146 Sept. FANTASTIC STORY B-878

Build a Fine Business — FULL or SPARE TIME!

START RIGHT! DON'T INVEST A CENT FOR

BIG MONEY

WITH FAST SELLING

MASON JACKETS and COATS

We Show You How To Make Money From Very FIRST Hour!

Start your big business, backed by this 47-year-old, million-dollar company! We furnish FREE SELLING OUTFIT—How-To-Do-It instructions that help you take orders QUICK! You get practical Sales Hints — monthly newspaper with plans that WORK — Customer Gifts that bring "Automatic Sales"! CASH IN QUICK — build highly profitable Repeat Business!

SILVER GRAY TACKLE TWILL JACKET →

Men everywhere waiting for you to show and SELL them this high-style new jacket of gleaming, lustrous tackle-twill so tough it's used in making football pants. Included in FREE selling outfit. Write TODAY.

← MILITARY GABARDINE TRENCH COAT

Smart, masculine military style coat SELLS FAST to men who want rain-protection with smart styling, long wear. Also leather jackets, raincoats, colorful Jac-Shirts. Get FREE Outfit NOW!

FOLLOW THESE TOP MEN TO EXCEPTIONAL PROFITS

"I have had many experiences selling as many as 5, 6, and 7 pairs in one sitting. I received a phone call from one party, who wanted 2 pairs of shoes. I went to his store and made 7 sales."

Harry R. Williamson

"For four years, my average weekly earnings have been around $80.00 per week — I couldn't have done it except for the liberal commissions paid by the Company on this wonderful line of shoes and garments above and beyond competition."

Charles Tuttle

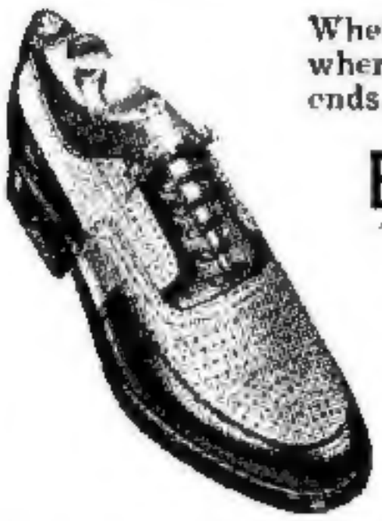
MAKE EXTRA CASH SELLING SHOES

Everybody buys shoes! Nation's Leading line offers over 150 styles, finest comfort-shoes for work, dress, sport. Fit Men and Women!

Guaranteed by Good Housekeeping

GOOD HOUSEKEEPING SEAL OPENS DOORS, CLINCHES SALES!

When you mention "Good Housekeeping", women everywhere KNOW YOU OFFER FINE SHOES — hesitation ends — sales come easier than ever!



EXCLUSIVE! Velvet-eez AIR CUSHION SELLS SHOES FAST

Thousands of tiny air bubbles give buoyant arch support, provide all-day-long comfort . . . and EVERYBODY wants foot comfort!

POWERFUL NATIONAL ADVERTISING

You get the benefit of big, powerful ads in Good Housekeeping, scores of other national magazines! Millions KNOW MASON — we pay the bills to help you become known as the Factory-trained Mason Shoe Fitter in your town!

GET FREE SELLING OUTFIT!

Get into the BIG MONEY right away! Send for your outfit today, be in business next week! as the direct factory Salesman of the Leader in the industry! DON'T DELAY — WRITE TODAY!

RUSH COUPON NOW!

MASON SHOE MFG. CO.
Dept. M-792, Chippewa Falls, Wis.

Help me build a Fine Business selling Jackets, Raincoats, and EXCLUSIVE Feature Shoes. RUSH me your FREE Selling Outfit, including Tackle-Twill Jacket, Velvet-eez Air Cushion shoes, unique Zipper shoes, other fast-selling items. Send everything FREE and POSTPAID. My own shoe size is (.....)

Name .....

Address .....

City & State .....

MASON SHOE MFG. CO.

Dept. M-792 Chippewa Falls, Wisconsin

YOU'VE DREAMED OF OWNING A GIANT UNABRIDGED DICTIONARY LIKE THIS!

TAKE IT FREE!

as Your Gift for Joining "America's Biggest Bargain Book Club"!

BRAND NEW!

A Dozen Volumes in ONE!

NEWLY REVISED EDITION!

A Truly MAMMOTH Volume:
Actual Size 9" by 12" by
FIVE INCHES THICK
Shipping Weight Over 11 Lbs.

United Nations Charter

- Chronology of World War II
- Constitution of U.S.A.
- Chronology of U. S. History with Most Important Happenings
- Atlas of the World, with Special Map Section in COLOR
- Population Statistics of EVERY U. S. City and Town
- Principal Commercial and Financial Terms in EIGHT LANGUAGES
- Glossary of 5,000 Words Often Mispronounced

Plus Dozens of OTHER self-pronouncing Dictionaries!

No home should be without it!

This Brand-New 1951 World Edition of

IT WOULD COST YOU $26.50 AT RETAIL!

WEBSTER'S UNABRIDGED DICTIONARY

2396 PAGES! SHIPPING WEIGHT OVER 11 LBS!

Nearly 400,000 Definitions! Maps! Gazetteers! Glossaries!

AT LAST you can own the UNABRIDGED WEBSTER'S NEW 20TH CENTURY DICTIONARY in the mammoth 2396-page volume pictured here!

You do NOT pay the regular retail price of $26.50 for this distinguished Work—you get it FREE as your introduction to the many special advantages of membership in "America's Biggest Bargain Book Club."

Defines Nearly 400,000 Words

Between the handsome gold-stamped covers of your Webster's Unabridged Dictionary lies everything you've ever wanted to know about the language you use every day—and about hundreds of *other* everyday subjects, as well.

A DOZEN Volumes in One

This massive Work opens up for you a whole world of latest facts about famous people, events, places, sciences, arts, professions, etc. It spells, pronounces, defines, and traces the origin of nearly 400,000 words and phrases! Includes a World Atlas; a Glossary of over 5,000 Words Most Often Mispronounced; Pronouncing Dictionaries of foreign, technical, commercial terms; how to write letters, greet others, etc. It has been called the most comprehensive, up-to-date Dictionary in use today!

Act AT ONCE

This amazing offer may never be repeated—so fill in the valuable coupon below—mail it TODAY—and almost *overnight* you will have your giant FREE WEBSTER'S UNABRIDGED DICTIONARY to use and enjoy for a lifetime!

OVER 3,000 PICTURES!

Not published by original publishers of Webster's Dictionary or successors.

Mail WITHOUT MONEY to
BOOK LEAGUE OF AMERICA
Dept. TFG-9, Garden City, N. Y.

Send me—FREE—the brand-new giant WEBSTER'S NEW 20th CENTURY UNABRIDGED DICTIONARY, 2396 pages, weighing 11 lbs., nearly 400,000 definitions, and enroll me as a member. Also send me as my first Club Selection, the new best-seller checked here:

☐ Joy Street ☐ Infinite Woman
☐ Proud New Flags ☐ Fort Everglades

The best-selling books I choose hereafter may be either the *regular* Selections *or* any of the *other* popular books described in the Club's monthly "Review." Although the same titles may be selling for $3 or more at retail, I am to pay only the Club's special low members' price of $1.49 each, plus few cents shipping charges; and I may cancel my subscription at any time after buying twelve books from the Club. No dues to pay; no further cost or obligation.

GUARANTEE: If not delighted, I will return all books in 7 days, cancelling this membership.

Mr. }
Mrs. } .....
Miss } (Please Print Plainly)

Address .....

Zone No.
City..... (if any) ....State.....

Slightly higher in Canada: Address, 105 Bond Street, Toronto 2. (Offer good in U. S. and Can. only).

SEND NO MONEY! PAY POSTMAN NOTHING!

Simply mail coupon WITHOUT MONEY—and your mammoth WEBSTER'S UNABRIDGED DICTIONARY will be sent to you *immediately*, as a new membership GIFT from Book League. Most amazing, you will *pay nothing, owe nothing*, for this volume! WITH it will come either the best-seller "Joy Street," or any OTHER book you select in coupon.

You Choose Your Own Best-Sellers!

Thereafter you will CONTINUE to receive YOUR OWN CHOICE of best-selling new books by famous authors like Steinbeck, Maugham, Hemingway. You choose after reading an advance description of each book in the Club's free "Review."

Your Savings Are TREMENDOUS!

Although the book you select each month may sell at retail for $3.00 or more, YOU pay only the bargain price of $1.49, plus few cents for shipping—a saving of up to $1.50!

SEND NO MONEY!

Mail coupon NOW—WITHOUT MONEY—and enjoy this most generous gift in Book League history. Enjoy, too, the best-seller you select in the coupon. Remember, your pleasure is GUARANTEED! *BOOK LEAGUE OF AMERICA, Dept. TFG-9, Garden City, N. Y.*

—And You Also Get This Big Best-Seller

JOY STREET
By Frances P. Keyes
Nation's No. 1 Hit!

Or, Take One of THESE:

PROUD NEW FLAGS
By F. Van Wyck Mason

THE INFINITE WOMAN
By Edison Marshall

FORT EVERGLADES
By Frank G. Slaughter